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The Demonstration Schools Record

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The Demonstration Schools Record

BEING CONTRIBUTIONS TO THE
STUDY OF EDUCATION

BY THE

DEPARTMENT OF EDUCATION
IN THE UNIVERSITY OF MANCHESTER

NUMBER ONE

EDITED BY

J. J. FINDLAY

Sarah Fielden Professor of Education

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CONTENTS.

PAGE.
Introductory Note... 1
I. The Study of School Children :
    (A) Use of the Demonstration Schools J. J. Findlay 6
    (B) Syllabus of the Year's Course in the University ... ...Barbara M. Foxley 12
    (C) Some Social Aspects of Child-Study H. Thistelton Mark 17
II. Study of Curricula and Method...J. J. Findlay 30
III. The Syllabus of Science Teaching P. Sandiford and F. W. D. Marshall 42
IV. The First Year's Course in French C. E. Stockton 59
V. Problems in the Corporate Life of School J. J. Findlay 73
VI. The Control and Financial Support of Demonstration Schools ... ...J. J. Findlay 85
VII. Handwork in History Teaching Grace Owen, Dora Walford, M. E. Sadler 94

Appendix A.—Mrs. Fielden (Reprint of an article in the *University Magazine*, November, 1906, with a portrait) 110
Appendix B.—Extract from Trust Deed, and Bye-Laws of the Fielden School, etc.... 114

Index 123

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The Demonstration Schools Record

INTRODUCTION.

IT is intended to issue, at convenient intervals, successive numbers of a publication such as is here presented in order to acquaint subscribers and others interested in the study of Education, with the work of these two Demonstration Schools and with the nature of the investigations which centre round them.

In this first number our chief concern is to show the variety of ways in which a Demonstration School can supply the needs of a University Department of Education, as concerned, firstly, with students preparing for their career as teachers, secondly, with lecturers and demonstrators, engaged, as in other University Departments, both in supervising students and in undertaking research into educational problems. This analogy with other University Departments is always present to our minds when planning the machinery by which a Demonstration School is controlled. Students of to-day, in contrast to fifty years ago, are being everywhere supplied with hospitals, laboratories, apparatus, libraries, field excursions to enable them to realise the full meaning of the ideas presented in lecture and in book; all departments of study, both in schools and universities where progress is really effective, are recognising more and more that the teacher is comparatively ineffective unless he and his students work together upon appropriate apparatus and material; the written and spoken word, of text-book and of lecture room, are merely symbols to interpret this material. All this is well understood as regards Medicine, Engineering, Chemistry, Law; it is not yet recognised so fully as regards Education. Mr. Mark's essay in this volume shows that we are not first in the field, and are not alone in pleading for this recognition, but we are still at the beginning of things, and this volume is largely concerned in describing the particular way in which our Department is seeking to organise the relations between Theory and Practice, between the University instructors, the students of Education and the scholars and teachers in Demonstration Schools.

The varied fields for investigation which centre round such work may be best illustrated by taking up the programme of study as outlined in the University Prospectus, and showing how, in the successive items of that programme the schools provide lecturer and student with material for observation, demonstration and practice. Thus Chapter I. deals with the Mental and Physical Life of School Children; Chaps. II., III., IV., and VII. take up investigations concerned with School Teaching, to which the attention of students is directed after they have made a study of children's minds and ways; Chapter V. deals with other features of the school regarded as a social organism, and affords an example of topics which are brought to the notice of students in the more advanced University Courses.

This record of the way we go to work can scarcely give to the reader a very pronounced impression of the play of cause and effect as between lecture room and school. In my own contributions I can only indicate the points which strike me as being most interesting or important; but we find that each lecturer, each teacher and student seizes on his own special line of interest; all alike concur in finding that great benefit is derived from associating theory with practice, and from practice of a sort which involves real responsibility for results. These boys and girls are here to receive a sound liberal education—they are under constant inspection—by visitors and experts from all parts of the Empire and from the Continent; if we only play at school-keeping we shall soon be found out! This sense of reality and craftsmanship leads to enthusiasm; we are in some sense pioneers, but we have to arrive at a very definite goal, and we are all ready to put our hand to the plough for the credit of our school. Likely enough our early investigations may not lead to great results; doubtless we shall go astray; much that we discover which appears of scientific value may be of little worth, or may wait for long before it finds the scientific genius to interpret it. But we proceed with confidence because we find that through such practical work our students feel their feet; if they learn little else, they learn the way in which truth is to be sought in their business of school-keeping, and they will advance far beyond our range of vision when they come to take our places.

It is not intended, either in this or succeeding numbers, to confine the contributions very strictly to the work done in these two schools. This work is, indeed, constantly being modified by what we learn from other sources, and it would soon degenerate to a narrow parochial level unless our particular methods were brought into comparison with work done in other places. Thus in the present issue we are greatly indebted to Miss Gilpin for the account of the scheme of studies in her school, which Professor Sadler has incorporated in Chapter VII. That scheme affords a most useful comparison with our present curriculum in the Fielden Upper School (see pp. 34, 35 below), and in some branches goes beyond anything we have yet attempted. We are especially indebted to Professor Sadler for finding time, at a period of great pressure from other tasks, to undertake this chapter in collaboration with Miss Owen and Miss Walford. Its proper place in the book is after Chapter II., but the printer has placed it at the end since the intervening chapters were already prepared for binding.

We hope that in future issues past and present members of the staff may find here a convenient vehicle for the publication of investigations, apart from the two Demonstration Schools. These schools are certainly not the only places in Manchester where research is being attempted; there are, indeed, quite a surprising number of able people at work in different fields of educational activity in Manchester and the neighbourhood. Much of this work is brought to our notice, partly when our students are are sent out to gain practice and experience in schools,[1] partly by aid of the University Education Society, which has been established during the last twelve months.

A chapter is added on the control of the Demonstration Schools. Questions are being constantly asked, especially by visitors from other Universities and from abroad, as to the way in which the schools are financed and administered. And these matters are just now of special importance because of the attention which they have attracted in the House of Commons and at the Board of Education. In the Education Bill of December, 1906, Mr. Birrell approved of the insertion of a clause on behalf of "Schools for Demonstration and Practice associated with Training Colleges, under the inspection of the Board of Education." With the rest of that Bill, this proposal came to nothing, but the efforts were renewed in the new session, and all that was possible has been done by Sir W. Mather, who is Chairman of the Froebel Institute in London, as well as President of the Fielden Schools, by Mr. Arthur A. Howarth, M.P. for South Manchester, by Mr. Francis Dyke Acland and other members of Parliament. We have printed in an appendix the Bye-Laws and an extract from the Trust Deed of the Fielden Schools in order to give exact information on points relating to control.

It may be of use to students of Education to note that in commencing the issue of a Record we are falling into line with very distinguished teachers who have set us the example of attaching a Demonstration School to a University Department of Education. Most of us who contribute to this volume have studied under one or more of the following, and a reference to their contributions may not be out of place :—

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[1] See Prospectus of Department of Education in the University Calendar, p. 360.

1. Profr. Rein, at Jena, has issued annually since 1896 a series *Aus dem Pädagogischen Seminar* (Beyer u. Söhne, Langensalza).

2. Profr. Dewey, while conducting his experimental School in Chicago, issued (1) "School and Society" (P. S. King and Son, London), followed by "The Elementary School Record" in ten numbers, and also a series of monographs. A selection from these has recently been published by Blackie and Son, London and Glasgow (price 1s.). Also,

3. From the Teachers' College, Columbia University, New York, with its Horace Mann and Speyer Schools, a series called "Teachers' College Records" (Macmillan and Co., London).

4. From the Department of Education in the Armstrong College, Newcastle-on-Tyne, Profr. Mark Wright is editing a publication of a somewhat similar character to this Record.

The first Annual Report on the amalgamated Schools is now being issued by the Committee. It includes a balance sheet and statement shewing the sources from which the schools are maintained (see ch. vi.). Other particulars relative to the schools are to be found in the prospectus and regulations issued to parents. Copies of these and other documents may be had on application at the schools. Teachers and others interested in the study of Education are always welcome to visit the schools during school hours. Unless such a visit is arranged for by members of the Committee or of the staff of the Department (see p. 122) it is requested that an intimation be sent beforehand to the Headmaster in the Upper School or the Headmistress in the Primary School.

CHAPTER I.

(A) THE USE OF THE DEMONSTRATION SCHOOLS FOR THE STUDY OF CHILDREN.

JUST as the medical student requires his Anatomy and Physiology before he turns his attention directly to Medicine, so the student of Education should know something of the subject of Education, the child, before being set to teach and to train him. True, he already possesses popular knowledge of what school children are like, but his knowledge is of no greater value for scientific purposes than the popular knowledge of the laity about the human body compared with the more exact knowledge required from the medical student. Hence the first course of study is not concerned at all with school problems as such, but with the Mental and Physical Life of School Children. It is intended to be, and on the whole is, treated as a piece of elementary scientific work.

(*a*) Dr. R. T. Williamson, treating of School Hygiene and the Physical Life of Children, is associated with the instructors of the Department of Education in working out the scheme, which aims to associate mental and physical phenomena, as observed in the growing and rapidly-developing organism from infancy to the close of school life, and especially the years from 5 to 15.

Now the problem for the Department has been a difficult one :—we have had to arrange a system of records and observations about our scholars, to take measures for these to be maintained term by term, in orderly, businesslike fashion, and to manage things so that our students should share in the work and associate it with the University Lecture Courses. A set of files has been arranged, a separate file being kept for each scholar; more than 100 scholars are now under observation.

(i.) *Anthropometry*. Our first care has been to keep an account of measurements of height and weight. These have now been recorded regularly in the Upper School for two years, being taken six times a year, just before each vacation and just after each vacation. It appears necessary to repeat these tests several times in the year, if statistics are to be obtained which will serve us in gaining a detailed record of the progress of the individual scholar. Records will need to be kept for a good many years before they can be expected to throw any light on the relations between mental and physical growth. We are a good deal puzzled by the apparent fluctuations in the rate of growth as between term time and vacations. Our boys have usually made the normal rate of progress in each twelve-month period, but if the figures we have secured are correct it looks as if in some cases the progress was made in spurts during a vacation, while term time appears to be a period during which height and weight stand still. We have no right to say that figures, taken for so short a period, from only a few subjects, and with somewhat inexperienced investigators, prove anything of the kind, but they certainly suggest a point worthy of further investigation.

(ii.) Dr. Williamson has also tested the eyesight, with striking advantage to some of the subjects, whose eyes were suffering dangerously from school studies. He has also reported upon the size of type in the text-books[1] used in the Fielden School, and his report places us in a serious difficulty, for our scholars *must* read a great variety of books if they are to make progress in humanistic studies (see p. 34 below), but we cannot control the publishers in their selection of founts for printing.

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[1] Vide "The Lancet," October 13th, 1906.

(ii.) In the Fielden School, Dr. Preston kindly undertook an examination of the teeth, and after a meeting between Professor Findlay and the Dental Association of Manchester[1], it was arranged that this important feature in children's health should be supervised in our Demonstration Schools by Mr. G. G. Campion.

(iv.) Finally, Dr. Williamson, with the assistance of Miss Julia White, M.D., has conducted an examination of our scholars on the accompanying form (on page 9), which is now filled for each scholar. The majority of the scholars are normal, and do not need much attention, except as regards the teeth; but there are a few who, especially as regards the nervous system, need careful attention, and these will be now kept in mind and re-examined as required.

It will be readily seen that all this practical work in the examination of physical conditions gives a reality to lectures on the Physical Life of Children and enables students to realise the importance of the subject in a way that would be otherwise impossible.

During the last three months Dr. Julia White has devoted a great deal of time to completing this examination, and the teachers in charge of the children, as well as well as lecturers and students, greatly appreciate the benefits of such detailed medical inspection. Public attention is now thoroughly aroused to the importance of all questions affecting School Hygiene, and we are only responding to an urgent demand in giving them an important place in our scheme of study.

(*b*) It is, however, equally important that we should take note of mental phenomena; indeed, it is more important, for schooling is more definitely answerable

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[1] "Transactions of the Manchester Odontological Society," February 19th, 1907.

DEPARTMENT OF EDUCATION (UNIVERSITY OF MANCHESTER) MEDICAL EXAMINATION OF SCHOOL CHILDREN.

School. Record of *Born* *in*

Date	Height in inches.	Weight in pounds.	Vision and Eyes.			Hearing. Whispered Voice at 18 ft.		Heart.	Lungs,	Teeth (Or see separate Report).	Nervous System and other Organs.	REMARKS, (1) Medical Officer, (2) Head Teacher.
			R.	L.	Notes.	R.	L.					

for mental than for physical development. The task here is much more difficult; genetic psychology itself is in the infant stage, and we have had to work out our own system of records. An account of the sessional syllabus has kindly been contributed by Miss Foxley (Chapter I. B), and this serves to show how the schools help in the lecture course. It is pioneer work, and may be expected to re-shape itself greatly in years to come, but it is, from the standpoint of the student's need, the only sound scientific method of approach. He must realise, by first hand and by carefully directed observation, that the child's nature, instincts, experience, ideals, are different from his own, and that the success of the teacher's work depends upon making proper allowance at all times for these differences. There is no doubt whatever that the laboratory method is producing its effect here. However scanty may be the sum total of our positive knowledge about mental reactions in children, what is known is being used in this work, and it puts the student into an entirely new attitude; he ceases to regard teaching as a work in which he is to play the prominent part before a submissive group of inferiors, and his mind approaches the professional, scientific, sympathetic type—objectively regarding his scholars as growing organisms developing a life of their own to which he can minister.

These records are intended to cover all information that is regarded as valuable in relation to each of our scholars. Some display particular talents:—thus, a special talent (*e.g.*, for drawing) appears at one epoch of a scholar's life; presently this may disappear, or it may expand and become a marked feature of his experience; if so, it may have an important bearing on his life's career.

It need hardly be said that the files are kept with scrupulous privacy under lock and key. They are treated with the same confidence that a hospital or a medical practitioner observes in keeping memoranda of patients. The cost of equipment in apparatus, etc., has so far not been great, and has been covered in the annual estimates of the Department of Education, but the work could not have been attempted in any outside school which was not entirely at the disposal of the Department. In view of the importance now attached to the medical examination of school children and the need for associating teachers and medical men in the study of these problems, I am prepared to say that in a University where hundreds of medical students and education students are being trained side by side, the maintenance of a Demonstration School would be justified on this ground alone.

J. J. Findlay.

(B) THE MENTAL AND PHYSICAL LIFE OF SCHOOL CHILDREN.

Notes on the Sessional Course (University Calendar, p. 355.)

Class. Students in their first year at the University, average age 19, preparing for Intermediate B.A. or Intermediate B.Sc., with Teacher's Certificate Course.

A similar course is given to graduate students taking a year's programme of professional training under the Teachers' Diploma Regulations.

Time. Three hours per week for about 25 weeks.

Text-Books. Drummond, "The Child, His Nature and Nurture"; Baldwin, "The Story of the Mind"; Kirkpatrick, "Fundamental of Child-Study"; James, "Talks to Teachers."

This course is planned to give a practical knowledge of the mental and physical development of children, based on observation and experiment in the Demonstration Schools. These schools are the laboratories in which the student gets a first-hand knowledge of his subject, while at the same time he is in touch with real scholars in a real school he sees experienced teachers working out methods of teaching and control, his theories are constantly put to the proof of experience, and, above all, he keeps in touch with child life. He has usually been a pupil-teacher, he intends to make teaching his profession; it is well that he should have the fullest opportunities for improving his academic qualifications for the work, but he needs to have the professional aim of his studies kept before him, as does the medical student, by intercourse with those actually at work in the profession he has chosen, and, above all, he needs to have his interest directed to the child for whose benefit the teacher exists. The student may not only get to know the child in the class-room, but under the free and joyous conditions of the playground, the school walks, the summer camp, the human, personal relationship between teacher and scholar is developed along with the scientific interest.

The first exercises of the course consist in the observation and record of the physical characteristics of individual children, and the comparison of children of various ages. A study of children's movements leads on to explanation of such movements in terms of mental experience. Before long the student finds the need for more definite knowledge and for a scientific terminology. The work then takes the shape of formal instruction in such parts of elementary physiology and psychology as are needed as a basis for a theory of teaching. When possible the theory is developed out of the student's own observations, and in all cases it is illustrated by experience acquired in the schools. The psychology is treated on the whole on genetic lines, but some practice is given in analytic methods. Selected problems of school life, *e.g.*, the development of speech, the growth of number ideas, self-expression in drawing, are dealt with in some detail, not only for the sake of the knowledge directly acquired by the student, but as illustrations of the methods of studying such problems. For example, in the study of the child's acquirement of speech, each student takes at least three observations of one of the scholars in the Kindergarten, recording what he said and the conditions under which he was observed. This gives over a hundred observations from the class, the results of which are examined, discussed and classified at the next meeting. In this way such facts as the absence of abstract nouns, the relation of vocabulary to surroundings, the nature of the connecting words employed by young childen, are brought home to the student in a practical way along with some of the common difficulties in pronunciation. The next week further observations are taken. Those students who have brothers and sisters below school age observe them, others observe the scholars from 7 to 15 in classes above the Kindergarten. Some examine the written exercises of the scholars, and interesting studies have been sent in of children observed in trains and trams or in the public parks. These observations are dealt with at class like the former ones. Then the students visit the Deaf and Dumb School, and also study the teaching of English in the Demonstration Schools and the teaching of elementary French or German on the direct method. This is followed by a formal lecture summing up the results of the practical work, comparing them with those of standard authors, and attempting to explain them psychologically. Direction is given as to reading, and special problems are suggested to be dealt with in essays.

The student also takes his part in the keeping of the school records. A record is kept of the physical and mental growth of each child. Height, weight, condition of teeth, sight and hearing are recorded, and an attempt is made to analyse the child's out-of-school experience—is it an only child, the eldest or youngest of a family, has it lived elsewhere than in Manchester or attended another school, has it stayed in the country, with what hobbies does it occupy its spare time? Its school progress is also recorded. These records serve a practical purpose in preserving past experience and so removing to some extent the difficulties arising from frequent change of teachers, they give the student some idea of the sort of knowledge that a teacher should have of his scholars. It is hoped that with time material may be collected which will be of scientific value. The records are of course kept under lock and key and are only available for the staff and for students.

There are obvious difficulties in the way of an attempt to teach psychology on such lines. Chief among them is the absence of a simple text-book of genetic psychology, but what the student loses in complete and formal knowledge he gains in the interest and vividness of first-hand experience. In the words of one of this year's class, "This sort of thing is very difficult to put upon paper, but it has given me a wholly new idea of my profession."

Another difficulty arises out of the students' previous training. Most of them have had two years of practical and theoretical science at the Pupil Teacher Centres, but this work has almost always taken the form of Chemistry and Physics. For teachers, and especially for those women teachers whose work will mainly consist in the care of young children, a training in elementary Biology would prove a far better preparation for the study of the living child, its needs and its capabilities.

It is too soon to attempt to gauge the results of the work. So far the students show much interest in the scholars of the Demonstration Schools and in the Public Elementary Schools, where they teach for three weeks in the summer. Their paper work also shows that they are trying to apply their theory to the problems of school life. It remains to be seen whether sufficient theory has been acquired to form a basis for Course II., the Principles and Method of Teaching, which forms the subject of study in the second year.

Barbara M. Foxley.

Syllabus for the First Term.

Physical Measurements. Height, weight, head-measurements. Simple tests of sight and hearing. Comparison of measurements taken in the schools with standard records. Graphic methods of record.

Children's Activities. Observations of individual children. Comparison of results of observations of children of different ages. Typical activities of the infant, the child and the young adolescent. Effects of varying conditions on activity—sunshine, fresh air, etc. Fatigue. Activity as the means to experience and self-expression.

Instinct. Unlearned reactions, nature and use of instinct. Classification of instincts. Typical instincts of scholars at different ages. Instinct and habit.

Experience. Learned reactions. The child's methods of learning. Hit and miss, imitation, ideas.

Special Enquiries. How the child learns to speak. Study of scholars' vocabulary and mental development. Study of the background of experience of scholars in the schools.

SYLLABUS FOR SECOND TERM.

The Nervous System. Structure and function of brain and nerves. Sensory-motor arcs of different levels. Nerve and muscle.

The Stream of Consciousness. Mental processes associated with bodily processes, but to be distinguished from them. Complex nature of adult thought. How does the infant think?

Feeling Tone. Observation of signs of feeling tone in scholars. Interest and attention. Importance of feeling tone in the mental life.

Sense-Perception. Characteristics of sense-perception. Visits to Deaf and Dumb School and Blind School. Comparison of normal children with Deaf and Blind.

Memory. Experiments showing types of memory. Importance of movement in relation to memory. Laws of memory. Habit.

Concepts. Stages in the growth of concepts illustrated by the child's acquirement of number ideas and ideas of form. Visit to schools for defective children.

Will. In relation to feeling and thought.

SYLLABUS FOR THIRD TERM.

Six lectures on School Hygiene given by Dr. Williamson.

An inquiry into some selected topic of Child Study.

For the Session 1907–8 children's self-expression in drawing and painting.

(C) SOME SOCIAL ASPECTS OF CHILD STUDY.

In a paper which precedes this, Miss Foxley has indicated lines which have been to some extent followed in the course of study taken with first year students in University and Training College classes, and with students working for the Teacher's Diploma. The courses bear a heading which is practically synonymous with "Child Study." The question naturally arises: Is this but the elements of psychology under a new name, or is there also a new point of view? As one who has for several years and in more than one form taken part in the elementary psychology courses, and during the last session has worked in some measure along the lines indicated in Miss Foxley's paper, I have been entrusted by the Editor of this short record of events with the answer to this question. The answer is, that, both to the teacher of the subject and to the student of it, the new course does represent a somewhat fresh point of view. There has always been, both for teacher and student, a difficulty in connection with the beginnings of psychology. It has formed a sort of high step at the threshold of the Training College student's career; at least, it has seemed so in the case of students hailing from industrial, matter-of-fact Lancashire. The student finds the new realm of study with which psychology deals somewhat difficult to define. Interested though he may be, *quâ* student, in his own mind (and especially in view of the series of examination labours that await him, in anything he can learn about his own memory), the beginnings of psychology have none the less demanded a sudden ascent into a new and somewhat intangible world. In order to give conscious point and relevancy to the work, the practice has been to move on somewhat rapidly to the study, necessarily combined with a certain amount of observation, of Infant School and Elementary

School life and work. This need, of course, still exists. And part of the vindication of the new syllabus, as well as of its success, will be in its relevancy to the life and work of the school.

What, then, is distinctive of Child-Study; and in what ways—for this is my more specific subject—may it be said to have definite social aspects and social values?

A rather wide definition—but valuable on that very account for the suggestion it contains—was given by Miss Louch at the "Normansfield" Child-Study Conference in 1902: "I take it to mean, shortly, a study in biology of the human being from the first moments of existence to old age—a study of the development of the human being in particular, and of each stage of his development, with its characteristics." A bold venture by way of definition of Child-Study perhaps, but one which is suggestive of continuity and, therefore, of biological veracity. "It matters enormously," Miss Louch added, "to the community whether the *young* human being is modified to the best advantage; therefore we concentrate our efforts and our attention chiefly on the development of the child." The question of social values is here at once raised; and in the present brief paper it will be presented with a threefold reference: (I.) to the teacher, as a factor, and a formative factor, in the life of the community; (II.) to the school, as an institution established by, and existing in, the service of the community; (III.) to the child, as a rising member of the community.

(I.) In order to keep within the aim of the present record, reference to the teacher is limited to the teacher-in-training. To him the gain is that he is brought face to face at once with the child. Year after year I have been struck, on the occasions of visits paid to Infant Schools, by the manly way in which the big fellow who is going to be a teacher regards the little child. It has always been part of the plan of work in Training

Colleges to give time to visitation of schools and observation of children. The chief difference attaching to a course which is expressly concerned with Child-Study is one of emphasis. A course definitely undertaken as a Child-Study course makes school visitation and observation much more systematic, with a tendency for such observation to become, so far as possible, the basis of theory. It tends to keep alive the consciousness in lecturer and student of facing the child whole. Under these conditions it is believed that the student inevitably brings more of himself into the study. He comes as a whole man to his task, with human aptitudes and human interests more completely quickened. Is it not everywhere part of the teacher's ideal *to live his life whole* in his work? The alpha and omega of our study of methods is that we may be simply and directly human, an end most readily furthered by our complete realisation of the humanness of those we teach. When our human sympathies are fully stirred we are helped to escape from the formalising influence of teaching comparatively simple things to undeveloped minds. Hence, we cannot learn too soon that contact with young life is like that of the artist with the medium in which he works. As Professor Lloyd Morgan expressed it, in an address on Child-Study at this University some eleven years ago, teachers are " builders of human edifices, sculptors of human lives." Child-Study thus becomes, in one of its aspects, the artist's study of his medium. And a real gain from the teacher's standpoint is in the concrete view which this gives him. " The teacher's attitude toward the child," says Professor Münsterberg, of Harvard, "being concrete and ethical, is positively opposed to that of the psychological observer, which is abstract and analytic " ; though a certain readjustment of psychology itself in this respect is to be referred to in a moment.

(II.) The school, as all admit, is capable of being a sociological factor of vaster moment than it has ever yet become in common practice. In some nations, truly, where sociological problems of an insistent kind are ever to the fore, as in the United States and Canada (especially Western Canada), the school is looked to as the one possible and practicable means of solving them. But the fact that the school is the chief unifying and nation-making agency under these special conditions in "new" countries only serves to accentuate its power as a nation-building agency wherever it may be found. In "old" countries it is the supreme means of utilising what is greatest and best in the past and in the present for the up-building of the future. But the school can only do its full work in this direction on one condition, namely, that we look behind the institution to the scholar, that within the school we see the child. The school has a social value which home-education, even if it were universally possible, can never claim. But, again, on the one condition, that the exigencies of mass-education are not such that the individual child is almost lost to view. The city of Rotterdam builds its new class-rooms to accommodate classes not to exceed 35 or 40. From the side of numbers this gives a fair chance for teaching in an Elementary School; though Dr. W. T. Harris fixes 30 as the ideal number for giving the stimulus and social opportunity which are afforded when numbers work together, and at the same time securing the individual scholar against neglect. In this way, part of the condition of the higher social value of the school may be realised. The other part is that in the minds of teachers and school organisers, and of the nation itself, the school shall be acknowledged to be an institution the aim of which is to set free and strengthen the powers, and to enlarge and make purposive the acquisition of every individual scholar. This is the side of the question which Child-Study emphasises. In school we are dealing, as Thring has so emphatically urged upon us, with "lives, not lessons"; or, at most, with lives through lessons. True, Child-Study results are often presented in tabulations, and averages, and graphs. But, even though this may be the science of the matter, it is not its essence. For, on the one hand, the chief value of generalisations is in the light they throw upon individual cases; and on the other hand, the essence of Child-Study is that it is in the first instance a careful keeping of individual records, apart from which no tabulations or generalisations can possibly have scientific value—physical measurements (height, weight, girth of chest, power of endurance), records of temperament, records of capacity and progress. Its aim is to know the *individual* child. And a school so motived has already set before itself the ideal of "humanity" as "a love for the race, or for the ideal of man, in each individual."

(III.) The most directly interesting aspects of Child-Study and presentation of its aims arise, of course, when we consider less the teacher and the school than the child himself. American teachers said to me in 1900 that they were growing tired of Child-Study " with the child left out." At the same time, it is in planning how to bring in the child that the greatest caution is necessary. We must approach him at a respectful distance, and through his public performances rather than by button-holing and cross-examination. We do not want to make children of any age think too much of their physical condition, nor to transform part of their school exercises into something of the nature of conscious "confessions." Collective tests should be such as may be introduced naturally as parts of the ordinary course of school work; and they should be handled as such by the teacher, even though afterwards, as one girl was overheard telling another, "all the papers are going to be sent to a society."[1] Our aim is to get as near to unalloyed child-nature as possible; to observe, and, by comparing observations, to interpret, the child's native reactions to his environment; to "find" the child, and to make our findings the basis of our efforts to "educate" him. We do this in three directions. We study the child as a physical, an intellectual, and a social or moral being.

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[1] "Paidologist, vol. iv, p. 86. The name "Paidologist" is said to have been chosen for the organ of the Child-Study movement in order to avoid attracting the notice of children and awakening in them the consciousness of being quizzed.

(*a*) The basis of success in learning and in life is physical. "The first requisite to success in life," says Spencer, "is to be a good animal." One of the results of modern Child-Study has been quite definitely to give the body its place by the side of mind and character, and to see, with scientific clearness, that physical endowment and development tend to consort with intellectual. As is well known, American educators, *e.g.*, Stanley Hall, Earl Barnes, J. M. Baldwin, have done much to bring Child-Study to the fore. They have everywhere adopted this point of view; and have been followed and supported by educational organisers throughout the country. As the result of a careful comparison of Washington children of American parentage, we are told, for example, that the bright boys excel in height at ages 7, 8, 10, 11, 12, 15, 16, 17; in sitting height at all ages except 9, 11, and 14; in weight at all ages except 8, 9, and 14. Comparing all bright boys with all dull boys, without regard to sociological condition or foreign blood, the bright boys are found to excel in height at all ages except 13; in sitting height at all ages except 9, 11, 13, and 14; and in weight at all ages except 8, 12, 13, and 14. Some extremely well-conducted experiments have been made by the staff of the Child-Study Department under the Chicago Board of Education.[1] Here, too, one of the chief points established is the closeness of the relation between mental and physical capacity. This is ascertained by comparing in height, weight, work done on the ergograph, vital or breathing capacity, and grip, children of approximately the same age in the different school grades; the grading being accepted as a rough estimate of intellectual capacity. We have thus, from these and similar sources, statistical confirmation of the oft-quoted saying of Juvenal with which the physician-philosopher Locke introduces his "Thoughts on Education": *a sound mind in a sound body*. The professional physiologist is doing admirable work in this department of Child-Study. To the widely-known name in this connection of Professor Sherrington, of Liverpool, may be added that of Dr. Williamson, who is rendering good service to students of Education in Manchester. One noteworthy piece of evidence presented by Professor Sherrington relates to the influence of surrounding conditions of life upon the physique of the child. Ten Liverpool schools were examined, five situated in well-favoured, and the other five in ill-favoured, neighbourhoods. Children of the ages of 6, 9, and 12 were examined in each; the measurements taken being of chest, girth, height, and size of head. The results were all in favour of the children of the better city environment; though, as Professor Sherrington points out, no corresponding differences are to be traced in the children at birth. The less-favoured children *grow up to* average smaller stature, the chest measurements showing the most marked differences. These results have received striking confirmation in a Blue-book, published last August (1907) reporting on the physical condition of children attending the public schools of the Glasgow School Board. Average heights and weights show a steady decrease as we pass from children living in four-roomed houses (or over) to children in one-roomed. The figures, taking all children from 5 to 18 years of age, are:—

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[1] It is worth noticing that the parents of any child attending one of the Chicago schools, may bring their children on Saturday mornings to be tested as to sight, hearing, etc.

	Weight in lbs.		Height in inches.	
	Boys.	Girls.	Boys.	Girls.
One-roomed	52·6	51·5	46·6	46·3
Two-roomed	56·1	54·8	48·1	47·8
Three-roomed	60·6	59·4	50	49·6
Four-roomed and over	64·3	65·5	51·3	51·6

The work of such pioneers of a wholesome civic life, and of a wholesome education as part of that life, as Mr. T. C. Horsfall and others, has prepared our minds for some of the conclusions to which these facts point.

(*b*) We are able, moreover, to make some progress in the study of the child on the side of his moral and social nature. As this is a topic rather for a treatise than for discussion in so condensed a paper, the reference shall be of the briefest. Miss Foxley's paper shows the importance which one is compelled in studying child-life to attach to the child's active tendencies. Matthew Arnold said that conduct was three-fourths of life; and he might very considerably have increased the fraction without endangering the truth of the assertion. Child-Study opens our eyes to this in a way that, perhaps, the mutual contemplation of each other's lives by adults would never have done. It is an interesting speculation as to how far the new "pragmatist" philosophy—the philosophy which asserts that action is alike fundamental and final—with Professor William James at its head, may, more or less consciously, have had its origin in the way in which thought has converged upon the child in America; upon his progress, and upon educational progress generally, in and through the application of Froebel's great pedagogic precept of "learning by doing.' This newest school of philosophy, modern biology, and Child-Study are all pointing one way. The child's reactions, instinctive and acquired, are the absolutely and fundamentally important things about him. His ideas and feelings are so far of secondary importance, in that it is mainly what he does that counts. And the study of the child has already proceeded far enough for us to be able to affirm, as Preyer, James, Thorndike and others do, what his native instincts are. We are coming to know, though at present in a very general sort of way (and with the allowance of a wide margin for variation), the order in which, and the guise under which various instincts arise. We are coming to know something of the child's native predispositions to right behaviour, and so to have an insight into the moral educability of the child and (allowing once more for variations—in this case mainly called for by differences of temperament) into the methods of moral training, or training in conduct, which are likely to answer.

(*c*) In the third place, we are able to study the intellectual aptitude and tendencies of children. It is interesting to be able to go back to the first half of the seventeenth century to find an English writer urging the need for this. Dr. A. W. Ward commends to those interested in Child-Study the words of Sir Henry Wotton, who, having written a pamphlet on *The Elements of Architecture,* which was well received, was "encouraged to assay how he could build a man." But, just as before men cultivate the earth " they use to consider what the mould will bear, heath or grain," so the first step in education is to find "a way how to discern the natural capacities and inclinations of children." Wotton cautions his readers that this is not so easy as might appear. People make mistakes in two opposite directions. They are either inclined to form too favourable an opinion—" so cheap a thing it is to bestow nothing but hope,"—or they underestimate the powers of children who do not quickly show their capacities. He advises the teacher " to set down beforehand certain signatures of hopefulness, or characters (as I will rather call them), whereby may be timely described what the child will prove in probability." Amongst these characteristics, which Wotton thinks may be useful as guides in Child-Study, are the countenance (especially the eye), the form of the head, the complexion, build, and mental characteristics. "Every nature," as he says in his *Aphorisms,* "is not a fit stock to graft a scholar on."[1]

One valuable result has been specially noted by Sir James Crichton-Browne. "When," he says, "by a number of series of accurate observations it is demonstrated that the children of savage, semi-savage, or inferior races, walk and talk sooner, and are at all early ages more advanced in the display of their activities and faculties than other children of the best European blood, then parents amongst ourselves will be less anxious for premature efflorescence in their offspring, less proud of their little prodigies, less discouraging to the supposed dullard who is slowly but surely building up that brain fabric which in the long run will prove strongest, most enduring, and best." This goes to confirm the half-speculative theorising of Rousseau, the virtual father (through the eager and painstaking discipleship of Pestalozzi) of the Child-Study movement, that one of the first lessons the educator has to learn is not to gain time, but to lose it. "High evolution is late evolution."

Another interesting and useful result is referred to by Professor Sherrington. It concerns us all to know whether, and, if at all, to what extent, our school methods are tending to the production of a type of child who may best be described as a "*school* child." If, as is said to be the case, certain studies (or, as I think more probable, certain methods of study) tend to reduce the scholar to automatism, it is well to know what they are, and how the tendency attaching especially to them may be avoided. It is no part of our school aim to turn out "automaton-like" children. Experimental enquiry undertaken by Professor Binet at the Sorbonne Laboratory, in Paris, leads him to the conclusion that there are some children who naturally react like automata. Exposing a series of five lines in turn to be copied by children in lines of corresponding length, each line being longer than the last, the experimenter finds that, though the remaining lines exposed in turn from the sixth to the twentieth are of the same actual length as the fifth, children of this type are so biassed by the notion of increase due to their experience of the first five that they will go on increasing the length of their lines to the very end. Such highly suggestible children often have what M. Binet calls a " school intelligence," which gives them good places, sometimes very high places, in their school work. Probably every reader has experience of cases in which children give answers not based upon their own reflection, but upon a sort of school-knack of anticipating what the teacher expects. The school boy is always in some danger of merely thinking to order. In so far as he does so, even though he displays " school intelligence " in so doing, he is approaching to automatism. Knowing of his existence, our aim must be to de-automatise the " automaton-like " child. For, as Professor Sherrington rightly says, such passive suggestibility may make him a useless, even a harmful, unit in the collective judgment that decides his country's actions. Nor is he likely to make a better showing in respect of industrial efficiency. In a report on " The School Training and Early Employment of Lancashire Children,"[1] based upon inquiries into the after-school history of some thousands of children who went to work in the mill, the conclusion arrived at was that " there is absolutely no correspondence whatever between school attainment and subsequent skill at work, or even—so far was the investigation carried—between school records and evidence afterwards given of general intelligence." It does not follow, of course, that the blame rests entirely with the school. The school may have developed qualities which the routine life of a mill may not evoke. The use which the young worker makes of his leisure should be also taken into account in estimating the value of his school-education. At the same time, if the intelligence which the school sets store by does not tally with the intelligence of the worker, the fact is one for the school to face. As to remedies, the teacher's own instinct for practicality—his own quickening in mind-power and will-power, and his aim to quicken mind-power and will-power in his scholars—is the surest. It will apply to every kind of lesson. With regard to the effect of different studies, M. Binet found that children who had had a training in scientific subjects were much more free from self-suggestion in matters of sense-perception.[1] And, whilst unwilling to admit that any study or lesson need tend to automatism, it is clear that an all-round and well-balanced curriculum is an essential safeguard.

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[1] From the writer's "Educational Theories in England," page 56.

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[1] Board of Education, "Special Reports on Educational Subjects," Supplement to vol. viii, p. 38, price 3d.

The culminating thesis of the Rousseau-Pestalozzi-Froebelian teaching is that the child is alive. The more we realise this, the cardinal principle of Child-Study, the more shall we deal with lives rather than lessons; the less possibility will there be of automatism. Imagine the pass to which an Infant School teacher was once brought, whose discipline was complained of because one of her infant scholars, seated on a form which was too high for his feet to reach the floor, swung his toes in an official's presence. One of the deepest impressions left by a first year's participation in a Child-Study lecture course is that it is really the child's nature to move. We must allow for the fact that he is alive.

Child-Study partly synchronises with, and is in part symptomatic of, a new method in Psychology. On the intellectual side, and largely on the ethical, it is practically identical with genetic psychology, the method of which is biological and comparative. Certainly many psychological problems seem to find their promise of solution in a completer knowledge of the mind of the child. It may not even be a vain dream, which is cherished by a worker of such tireless industry as Dr. Stanley Hall, that the Child-Study movement may slowly do for studies of the mind what embryology has done for anatomy, by bringing in a genetic method, based on carefully collected and critically sifted observations.

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[1] "Paidologist," vol. iv, p. 83.

It scarcely needs saying that this is a study in which we must be content to make haste slowly. A difficult matter, doubtless, is to strike the balance between following the child's lead and giving him a lead. It is certainly necessary to know his interests. They reveal at least some of the lines of readiest assimilation, and certainly the lines of least resistance in the child's make-up. On the other hand, he must not be thought capable of spontaneously recognising what is good for him. "A boy, and normal at that, may be fonder of green apples than of oatmeal."[2] But these are matters in respect of which the average teacher of experience finds his own whereabouts. Happily for the world, many of the crucial difficulties of theory are, sometimes long even before they find theoretical expression, already solved in practice. None the less, it is to teachers that the Child-Study movement owes its strength. And it is at the hands of teachers that it will bear its earliest fruit in the increased well-being alike of their individual scholars and of the community for membership in which they are being trained.

H. THISELTON MARK.

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2. See a paper read by Mr. Ossian Lang, editor of the "School Journal" (New York), before the Child-Study Department of the U.S. National Educational Association in 1898. From 1898 to 1900 represented the moment of strongest reaction in America against the sentimental phase through which Child-Study in its earliest stages passed.

CHAPTER II.

THE STUDY OF CURRICULA AND METHOD.

WHEN a student has made a start with the study of children, he is prepared to consider the pursuits in which children engage while at school. These pursuits are selected class by class in response to the various, and often conflicting, demands that are laid upon the schools from different standpoints. I do not propose to discuss here the nature of these demands: they form the subject of a number of lectures on the curriculum, which come as a sequel to the courses on the study of children. The school provides a field for showing in daily process the operation of these demands. Thus the pursuits followed by older scholars in the upper school, referred to above, have been partly chosen with the knowledge that these boys require an equipment to enable them, about 15, to start on a commercial or industrial career.

A brief account of the scheme of pursuits in the different classes will serve best to indicate some of the problems which we are seeking to investigate. In a general view, we regard the curriculum as having to fulfil three aims; many would differ as to the relative importance of the three, but no one would venture to discard any of them—(1) to provide the scholar with the ordinary mental tools which modern life requires—in the three R's to begin with, in drawing, and in the constructive arts; (2) to assist him towards a rich and varied experience, so far as his powers and interests reach in all that is worth learning about the world—of nature and of man—as it is and as it has been; (3) to direct to some extent his ideals. These, in the rough, are what men and women, either at Whitehall or in the homes of our scholars, expect our schools to have in mind when we plan curricula, as ends to be more or less achieved by each scholar. The practical problem of the teacher as directing the scholar's pursuits is to select occupations for him at each stage of development, which, step by step, may help to cover these three demands. The schools everywhere, in response partly to outside pressure, partly to a better knowledge of child nature, are constantly criticising and re-casting their schemes of study. Our task in these schools is to sift as best we may the wheat from the chaff and demonstrate by prolonged experiment the value of what we believe to be sound contributions to reform. The following notes may show some of the directions in which we are at work :—

Age 4—6. It is now generally agreed that infants ought not to come to school for the purposes of formal instruction; they learn through play-activity, not through the formal guidance of lessons. But they need society, and this is the chief reason, from the standpoint of educational aims, for inviting them to school. Attempts *formally* to help them to ideas of language, as written or read, or of arithmetic, are discouraged, for such bits of parrot-learning on these topics as they may acquire painfully while babies would be better learned with ease in later years. Nevertheless the occupations of the Kindergarten are chosen with care, for the child's mind is like a dry sponge, he absorbs impressions with extraordinary power, and hence his experience can be greatly enriched if we follow the laws of mental development. These laws suggest to us that the child should commence to enlarge his experience *from the point where he begins, viz., from his home;* and our Kindergarten curriculum, of story, song, manual occupation, drawing, and so forth is simply an enlargement of experience that the home, with its food, clothing, shelter—and its sentiments of friendliness and simple affection—has already provided. Thus three mornings last autumn were spent on a farm in Didsbury. The good lady who directs that farm let them see how the ploughman prepares the ground; how the corn and the vegetables grow; how the cows are fed and milked. Then at school they played, *i.e.*, imitated, the processes of turning corn into bread; they cooked some vegetables; they joined in a harvest festival. Later in the year they have seen the carpenter and the builder at work, and it needs little imagination to picture the way in which these experiences are repeated by them in all kinds of symbolic expression in the school; and at home too, for fathers and mothers are told of all and are expected by their bairns to share in this new life which brings home and school so close together. The natural and delightful process of this curriculum tends to confirm the social theory on which it is based, viz., that the best equipment for the stern necessities of life is to be sought in the primary facts of plain primitive existence, where parents and children have to live and survive by " daily bread." To the little ones, indeed, it is all play, but the topics of this play are of real importance and tend at this impressionable age to engage the child's interest in things that lie about him and concern him most closely. Further, apart from the definite selection of occupations, the social life of the infant school is planned to serve the same end. The little ones are not regarded as helpless babies; although so young, they can already practice habits of industry and helpfulness. Every morning they set their table for lunch, they clean up, and keep things tidy; they help, or think they help, in decorating their room; the spirit of social and domestic service, which is the foundation of family happiness, must be fostered by the school, or else school and home are placed in an unconscious antagonism.

Age 7—9. In these years our little boys and girls are ready to proceed rapidly with the acquirement of the three R's. We are hoping to make some useful contribution to the problem of method in learning to read. Miss Owen has paid special attention to this subject—to the controversies between look-and-say methods, phonetic methods, and the like; and in due course we hope to offer the results of the investigations conducted in these classes. Here I may indicate one practical want which we hope to supply if funds will permit. We ought to be able to reproduce (either with a small printing press or some good type-writer and multiplying apparatus) a number of copies of our own selected reading material, in good large type. The value of this will be at once apparent when the curriculum is considered from the standpoint we have already discussed in relation to the Kindergarten as affected by the growth of the child's experience. Reading, writing, arithmetic, are in themselves only of an abstract symbolic nature—the reality of the operation which they symbolise depends on the relation of the subject matter, which is read, written or counted, *to* the child's interests at the time.

Speaking generally, it is in the study of these interests that the most important problems of the elementary school is presented. Space will not permit here of discussion of the problem. We have adopted for experiment the scheme for a curriculum suggested by Dr. Dewey.[1] The occupations and activities of the home lead to an enlargement of questions, demands, endeavours on the part of the child, which can best be satisfied by showing him how our forefathers lived and worked and thought in primitive and simple conditions. The schemes of pursuits in these classes (ages 7 to 9) are deliberately planned in the belief that Dr. Dewey is right in turning to epochs of primitive life as the suitable source for material in story and song, in art and in occupations. We are repeating his experiment, but paying more attention perhaps than he thought necessary to daily practice in the formal arts of arithmetic and writing. (See Chapter VII.)

Ages 10—12. It must suffice to indicate some of the problems which we are seeking to solve :—

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[1] "The School and the Child" : Essays by Professor Dewey (London : Blackie & Son, price 1s.).

(1) How can history, geography and literature be brought into closer relationship to the scholar's experience? One means to this end is to appeal more than has been done hitherto to sense impression, utilising local environment, the geography and history of the neighbourhood. And the appeal should also be made to sentiment. Our children will learn to love their native town before they love their country—civic patriotism should come before imperialism. I have as a schoolmaster made efforts in this direction, and I know that there is a rich field here for new experience, which will find a response among many citizens when once their imagination is stirred to believe in the resources of the school as a factor in civic progress. So far as literature is concerned, we are working on plans, which I had in earlier years followed at Cardiff, of associating a *class* library with the course of study pursued during a session. Children will read much if they are interested, and their reading at school should not be confined to the few text-books which are read in common. A well-selected shelf of books—travel, poetry, romance, biography, descriptions, connected with the epoch which a scholar is studying, is one of the best means of enlarging his experience as well as of laying the foundations for taste in literature.

(2) The scholar's range soon passes beyond the shores of the British Isles, and by the age of 10 he is ready to find interest in a foreign country and in the speech of the foreigner. We have devoted special attention to the problem of modern language teaching, and the results are summarised in a paper submitted to the British Association (see page 69 below). To achieve any measure of success it is necessary that the work in the elementary stages should be conducted every day with steady regularity, and this condition can scarcely be met unless one teacher devotes his attention to the task. We were therefore fortunate in securing Mr. C. E. Stockton's

help during the last session, and the results are demonstrating the possibility of far-reaching reforms in method. Mr. Stockton contributes below some notes on the First Year's Course in French.

(3) The problem of reform in arithmetic teaching has been taken up by Mr. W. J. Deeley, the Headmaster of the Fielden Upper School. The need for direction and training to teachers in Arithmetic work is very acutely felt in many quarters. Mr. Deeley is preparing to publish some account of Method in Elementary Mathematics, which will embody the results of his investigations.

(4) A workshop has been started, and various forms of manual work devised. We are convinced that scholars need opportunity for motor activities of the general type indicated by the term "Manual Training," but we are by no means satisfied with the formal schemes usually adopted by manual instructors. In these, as in all the arts, we find the need of bringing them into closer touch with the scholars' experience and desires. Hence everything that they make, in paper or cardboard, in string or wood, is made for a purpose—usually for something required in their school, sometimes as a present to take home. Exercise books, library shelves, waste-paper baskets, netting to help in the games, frames for tools—these are only samples of the kind of practical useful employment that animates the scholars in learning to use their hands. Not only are they stimulated to improvement by feeling the reality of these exercises, but the social impulse is strong in them; this is their own school, and they find pleasure in social service. Technical skill is not retarded but advanced by suggesting immediate ethical motives for activity.

(5) The same general idea is directing our schemes of study in Natural Science (see page 42 below). The introduction of science, whether in the form of Biology, Physics and Chemistry, to children's minds is often a failure because the scientist refuses to recognise the gulf

that stands between the adult scientific mind and the immature child mind. The phenomena of the natural world must somewhow be brought into relationship with the child's experience and his view of things. We are seeking to revise the schemes of science teaching to meet this demand. We have a small laboratory, supplied with the usual fittings, and it is an easy task to carry a class through a set of physical or chemical experiments. It is a much harder task to plan experiments and devise a course of study which will enable the scholars to find anything that answers to physics and chemistry in his daily environment. A sketch for a syllabus covering four years has been drafted by Mr. P. Sandiford and Mr. Marshall on the basis of our experience during the last two years.

These are some of the problems that are engaging the attention of teachers and lecturers both in the Primary School and with the younger boys of the Upper School. In the higher classes we are brought into contact with a problem which affects not only the choice of pursuit for boys of 13 to 15, but with one of the most difficult problems in the organisation of a national system of Education, viz., the choice of studies for the closing years of the " Higher Elementary " School. We hope in a later issue of the Record to deal with this topic in detail.

While working at these and other problems of curriculum the demonstrators and class teachers have to consider how to help students to follow what is going on. For this purpose a student really learns best by going into the class-rooms, studying the schemes of lessons, and talking informally with demonstrators and teachers. It is in this way that a number of visitors, both English and foreign, acquaint themselves with the work, but in addition the students are introduced to practical study in two ways : —(*a*) By demonstration lessons. One or two hours in each week are set apart for a demonstration lesson, which can be attended by some thirty students at a time. We at present use one of the larger class-rooms and provide seats for students as best we can; we hope in due course to have a building erected where such lessons can be conducted with less inconvenience to students and scholars. The lesson is selected from the regular programme of a class, to exemplify certain principles of curriculum and method; it is preceded by an account in the lecture-room of the aims underlying the work and followed at a subsequent lecture hour by discussion of results. The student's part is to record the lesson and to seek an interpretation of what he witnesses. At the same time, he is encouraged to see the relation of this single lesson to the entire plan of pursuits. A series of such lessons, accompanied by investigation of principles, provides the student in his second session with a practical body of knowledge on the central business of his calling—the daily work of teaching children in classes. (*b*) As a sequel to this course the student proceeds in his third session to put this knowledge to use by himself undertaking charge of a class in one or other of the ordinary branches. He watches for a few lessons the work of the class teacher in this branch, and then, under his direction, takes the class in hand, and is made responsible for its progress during a school term. He is not left without guidance, since a demonstrator or class teacher is frequently present to check the course of the work and to assist the student in his preparations. Here again a careful organisation is required in order to see that the desired result is obtained. In each class-room there is a shelf containing Scheme Books. The accompanying form (p. 38) is a copy of the printed matter prefixed to each Scheme Book. With nine classes at work there are some eighty scheme books in all, and the principal duty of a demonstrator centres round the over-sight of these books, associated with observations of the work of class and teacher which it records.

This book to be kept always
in this room, and available for
the use of Visitors, Students,
and others.

PRACTICAL WORK IN SCHOOLS.

Scheme of Teaching
for

Class .... *of the* .... *School*

in .... *Room*................

On the left-hand side will be found a sketch of the sections as they are planned in succession throughout the year. These sections should show any " steps " that are followed on the plan of teaching, such as Preparation (*including an Aim*), Presentation in various modes, etc.

On the right-hand side a note day by day in diary form of the actual ground covered, exercises set, etc., at each lesson period.

[The student will keep his Notes prepared beforehand in a separate book of his own, which he should bring into class to show to the Demonstrator.]

Department of Education,
The University, Manchester,
Session, 1907–8.

This oversight and examination into methods is completed in the work of the seminar. The method of the seminar, along with the name, is largely borrowed from Germany. A student is expected, as soon as he has got his class of scholars well in hand, to give one of his lessons as an "open lesson" in the presence of a large body of Third Year or of Diploma (Post-graduate) students, and thereafter, at a separate meeting, to explain, and if needs be to defend, his plan of teaching. A well-conducted seminar serves to bring into relief the main ideas underlying the plan of teaching, and as, week by week, the work of different parts of a school are brought under review, the students make a comprehensive survey of the various groups of school pursuits and of the methods employed to achieve the ends proposed.

In order to enable students and visitors to follow the curriculum, a Plan is placed in each classroom. The form printed on p. 40 appears on the face of each Plan and shews the nature of the arrangements.

It will be readily perceived that no public school, Elementary or Secondary, can replace a Demonstration School for the purposes here described. School children and their teachers, lecturers and demonstrators must be close at hand, all working in collaboration. The theories of teaching come directly out of the practice as much as in a hospital or in a chemical laboratory. It must not be supposed, however that the sphere of the public schools is depreciated, or that any suggestion of rivalry or antagonism is fostered by establishing a separate Demonstration School. There is no antagonism between the practice of a general practitioner in medicine and the work of a demonstrator in a hospital. Experience in both spheres is necessary to train a competent medical man, and the analogy holds for the student of Education. Every student is sent out,[1] as a

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[1] See University Calendar, p. 360.

Plan for Class..................of the......................School,
From September, 190 , *to July*, 190 .
University of Manchester: Department of Education.

Practical Work in Teaching.

(Demonstration Schools.)

This Plan is to be kept always in the class-room so as to be available for the use of Students and Visitors when inquiring into School Curricula. The sectional details as pursued day by day in each group, may be examined in the Scheme Books, which are also kept in this room. Similar Plans (forming when read together a connected Course) may be seen in the other class-rooms, and the entire Course covers the pursuits of our scholars, as follows:—

Fielden Primary School.

Infants:	Kindergarten -	under 6 years of age.
,,	Transition -	Average age 6 to 7 years.
	Class I. -	,, 7 to 8 ,,
	Class II. -	,, 8 to 9 ,,
	Class III. -	,, 9 to 10 ,,
	Class IV. -	,, 10 to 11 ,,

Fielden Upper School.

	Class I. -	,, 10 to 11 ,,
	Class II. -	,, 11 to 12 ,,
	Class III. -	,, 12 to 13 ,,
	Class IV. -	,, 13 and above.

The Plans and the Sections are worked out jointly by the Staff of the School and of the Department of Education, and are the subject of discussion from time to time in the Seminars held in the University.

part of his scheme of training, to gain experience for some weeks in the regular routine of good schools, Elementary or Secondary as the case may be. Although the staff of the Department exercise some oversight over the student's work while at these schools, it is obvious that the main control must come from the principal of the school and his colleagues, for no outsider can rightly interfere in the school programme. In Manchester we are especially fortunate in this respect because of the large number of really excellent schools within reach, and we very rarely meet with anything except the greatest kindness and goodwill from public school teachers. We who lecture on Education have no monopoly of "reforming" ideas. On the contrary, we, as well as our students, learn much by associating with our colleagues in other schools. There is much being done of which we should remain ignorant, unless we sought for it in this way, much being attempted that we cannot attempt. This friendly co-operation of a Training College with teachers and schools in the neighbourhood has long been recognised as one of the necessary features in all good programmes for training. I refer to it again below in connection with our relations to the Board of Education (p. 91).

J. J. FINDLAY.

CHAPTER III.

INSTRUCTION IN SCIENCE.

SYLLABUS OF A FOUR YEARS' COURSE (FIELDEN UPPER SCHOOL).

THE Upper school, with scholars whose ages range from eleven to fifteen, has a curriculum which closely approximates to that of the Higher Elementary School as described in the Code. The problem of science-teaching to scholars of these ages has become additionally interesting since the publication, in May 1906, of the Consultative Committee's Report upon Higher Elementary Schools, which deprecated the scientific bias of the curriculum previously required by Whitehall in schools of this type.

Granted that some science ought to be included, the questions as to the suitability of material and method still remain to be answered. This paper attempts to give a tentative answer to the former question, but does not deal with problems of method, except in so far as these are inseparable from choice of material. The syllabus, as given below, has a background of experience, for during the last two years parts of it have been successfully worked out with the scholars in the Fielden Upper School. This work has shown the value of the plea, put forward by Professor Dewey in "The School and the Child,"[1] for a psychological curriculum based upon the growing experience of the child in preference to a logical curriculum based upon the scientific and organised knowledge of the adult. The difficulties of such a scheme are great, for the various parts must show co-ordination and must depend for illustrative material on the scholar's familiar experiences. Further, the material selected must be suitable to the age of the scholar and must appeal to his interests.

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[1] Blackie & Sons, 1907 (price 1s.).

One cannot hope to find any Course which satisfies all these requirements in an equal degree, and consequently the most satisfactory selection must be to some extent of the nature of a compromise. Thus botanical Nature Study would seem to be most suitable for the first year's Course. For, although this subject does not appeal to the child of eleven as much as zoological Nature Study, it has been found to be preferable because of the greater relative simplicity of the observations and experiments which have to be made. Plants, as well as animals, appeal to the child's natural interest in growing things, and the materials for experiments can be easily obtained. A course of this character can be connected by suitable references to natural phenomena which the scholars have previously observed. Such experiences may have been acquired either from definite instruction in Nature Study and Geography in earlier years, or may be such as are inevitably met with in the daily life of the scholar. In some cases a scholar commencing this Four Years' Course may have covered the same ground in another school before the age of eleven, but as a rule it is found that this has not been the case; if it has, one can only hope that the treatment will vary sufficiently to keep the interest alive. Moreover, a scholar in advance of his class can always be kept interested if his knowledge is utilised for the instruction of his fellows.

For the second year's course an elementary study of Physiography is undertaken with the "Water Cycle" (see page 49 below) as the central theme of the syllabus. All the necessary experiments can be conducted within the schoolroom, and the observations are such as fall within the experience of every scholar. This course of observation and experiment is needed at this juncture to assist in the assimilation of ideas about geography, and it also forms a useful introduction to the more abstract study which follows in the third and fourth years. The work of these two years deals with some facts of Chemistry and Physics as exemplified in some familiar phenomena of daily life and in apparatus of practical utility.

One guiding principle in the framing of the scheme has been the orderly progression in difficulty not only in manipulation, but also in abstract thought. For this reason Chemistry is the last subject to be taken because it depends on physical observations for its interpretation, and because its subject matter appeals to a more abstract mode of thought. Throughout the whole of the Four Years' Course a " Nature Diary " should be kept, and these records supplemented by excursions, visits to museums and parks, together with a fortnight's School Camp in the summer of each year. The courses proposed are given below in some detail, and correlations with other branches of the curriculum are shown in a parallel column. Teachers of Science will notice that there is very little reference in this syllabus to Physical Measurements. The reason is that work in measurement is treated as part of the Mathematics Course. The text-book used was Consterdine and Andrews' "Practical Arithmetic."[1] The Headmaster has deviated a good deal from the plan laid down by the authors of this work, nevertheless it may be taken by the reader as indicating the nature of the attempt made to associate Arithmetic with problems of measurement on the one hand, and with the practical use of elementary mathematical notions on the other. This arithmetic course involves a great deal of "Science," although it is not entered as such in the Time Table.[1]

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[1] John Murray, 1905.

It will also be noticed that an effort is made to direct the scholar's attention to Hygiene. This subject is only introduced in the last year, partly because it can be better understood by the scholar as he gets older, partly because ideas of Hygiene require a basis of Chemistry and Physiology if they are to be comprehended; and also because a scholar is more likely to put his knowledge to use if he has it fresh in the memory on leaving school.

A very interesting experiment in teaching Temperance and Hygiene was undertaken in the Upper School last May and June by Dr. Morris, a staff lecturer of the Band of Hope Temperance Union. The Course given by Dr. Morris was discussed at a meeting of the Seminar, and, although the general opinion was that the Course brought alcohol far too prominently before the scholar as a centre of interest, it was evident that, with an able teacher a great deal of valuable work, of real assistance in matters of health, can be done with boys who are receiving instruction in Science. But it is clear that this work must be introduced as part of a science course dependent to some extent on practical and experimental work of a biological and chemical nature. Much of it is necessarily empirical, much must be told, and much must be taken on trust; nevertheless there is enough material which can be subjected to demonstration and experiment to justify its being brought into a science scheme, while the personal and familiar nature of the topics readily secures the intellectual activity of the scholars.

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[1] Cf. also "Arithmetic and Geometry," a plea for Educational Reform (Educational Supply Association, London, 1905).

Syllabus for First Year (Average Age 10–11).

Note. The various sections are numbered for purposes of reference.	Correlation.
The Plant as a living organism (commenced in September). Illustrated by experiments with, and observations of, the wallflower seedling.	*Drawing and Painting.* Correlation throughout the Course.
1. The plant and its growth: The Nature Diary and how to keep it (see below).	*Literature.* Nature poems for reading and recitation.
2. The use of water to the plant: The effect of drought: Experiments on certain plants to be made in the class-room and garden.	*Visits* to museums and parks. Excursions and school camp.
3. The soil and its work: Comparison of the growth of plants in water, in soil and in food solutions.	
4. The plant and the air: Food of the plant in the air.	
5. Light and darkness, heat and cold: their effect on the seedling.	
Plants in Winter (commenced in November or December).	
6. Winter buds: the falling of leaves: leaf scars: effects of frost.	*Gardening.* Growth of various kinds of bulbs in glasses, in plant-pots, or in the school garden.
7. Storage of plant food below ground. Potato tuber, bulbs (tulip, hyacinth) and roots (Japanese sunflowers).	

8. Storage of plant food above ground. Seeds such as those of the poppy, pea, bean, nasturtium and wheat; the acorn: These various forms examined and contrasted.

9. Evergreens and their protection. The holly, fir, ivy and rhododendron. The bark of trees as a protection.

Germination in Spring.

10. The effect of moisture on the seed. Experiments with the bean seed.

11. The growth of the seed (the bean will be mainly used, but other seeds will be exhibited and experimented with for the sake of comparison).
    (*a*) Wrinkling of the skin, increase of size, bursting of the skin and the appearance of the root.
    (*b*) The nurse leaves or cotyledons: their function.
    (*c*) The young shoot: its rate of growth. Comparison with the root.

The parts of the plant. Wallflowers, pansies and other plants to be used.

12. Roots and their work: Different kinds of roots.

13. Stems and their work: Circulation of water in the plant.

CORRELATION.

Geography. Seeds as the exported and imported products of various countries.

Gardening. Some of the seeds mentioned in §8 will be planted and watched, and their growth measured.

Literature. The story of Proserpina and Ceres.

CORRELATION.

14. Leaves and their work. Manufacture of starchy food. (Refer back to §4, 7 and 11). Collection and mounting of common leaves in connection with §17 below (see Nature Diary also).

15. Flowers and their work: Parts of a flower using the tulip as an example. Completion of the Life-cycle arriving at the seed once more. Collection of seeds from plants growing at home and in the country.

The Study of Trees. Work of the Autumn term resumed.

16. Buds and what becomes of them. (Refer back to §6).

Woodwork. The kinds of timber and how to distinguish them

17. Study and comparison of some common trees, *e.g.*, the sycamore, horse chestnut, beech, oak, ash and willow found at the School Camp or in South Manchester gardens.

18. The growth of timber: Sap of the tree: Annual rings.

19. Preparation for Camp. Special lessons on the fauna and flora of the district to be visited.

20. *Nature Diary.* These observations are not necessarily commenced simultaneously, but are to be introduced as thought desirable.

(*a*) Observations of plant life.

CORRELATION.

- (1) The times when phenomena of plant life occur, *e.g.*, bursting of buds and opening of flowers and falling of leaves.
- (2) The systematic collection and mounting of leaves, and plants.

(*b*) Observation of animal and bird life. The interdependence of animal and plant life.

(*c*) Weather Records. The different records to be kept by different scholars.

- (1) Direction of wind: records kept.
- (2) Rainfall roughly considered in relation to the needs of plants.
- (3) Amount of sunshine.
- (4) Temperature. Hot or frosty days noted.

SYLLABUS FOR SECOND YEAR.

General Theme: "The Water Cycle."

1. *Properties of Rain Water* (collected from the roof of the school house or in the rain gauge).	*Drawing.* Sketching of filters, etc.
(*a*) Sooty matters in suspension and their removal. (1) By settling: The rain barrel.	*Woodwork.* Construction of Test Tube Stand and Filter Stand.

CORRELATION.

(2) By filtering: Sponge, wire, sand and paper filters.

(*b*) Dissolved matters. Evaporation of a small quantity of filtered rain water. Experiments to show the presence of gases in rain water.

2. Quantity of Rain which falls. Measurement by means of a test-tube which has been graduated to show inches of rainfall. (§7 of Third Year Course.) cf. Records kept in the Nature Diary.

Geography. Distribution of rainfall in various parts of England and comparison with other countries of Europe or with N. America.

3. Properties of Spring Water—obtained from a local spring or from the tap. The Thirlmere Reservoirs. Pumps, artesian and other wells. Comparison of spring and rain water.

(*a*) Amount of suspended matter: comparison with Ia. Reasons for the small amount.

(*b*) Substances in solution. Experiments to show the presence and amount. Hard and soft waters compared. Temporary and permanent hardness. Deposits on kettles and domestic boilers, etc.

4. Formations of springs. Pervious and impervious rocks. Elementary geological ideas of the strata of Northern England.

Manual Work. Making of models of springs and tiding wells.

	CORRELATION.
Tiding wells at the School Camp near Tideswell. (Model of spring in sand and clay).	
5. River Water (with references to local Geography).	Work on springs at camp.
(*a*) Suspended matter. (*b*) Dissolved matter. Calculation of amounts present in large streams.	
Water from Gore and Todd Brooks, the Rivers Mersey and Medlock will be compared with respect to (*a*) and (*b*) above.	
6. The Work of Rain, Springs and Rivers.	
(*a*) Cleansing of air by rain.	
(*b*) The work of *Denudation*. Formation of valleys and cañons: Speed of rivers: Mountain torrents and lowland rivers: Waterfalls: Formation of spherical boulders and pot-holes.	*Art Work* in sketching and the use of the Nature Diary.
Changes in the course of a river (local rivers visited). Erosion of banks; deposition on level ground: Silting.	
(*c*) Dissolving Action. Formation of limestone caves and underground streams. Cheshire salt. *cf.* §3 (*b*) on hard and soft waters.	Work at camp in cave exploration.
7. Sea Water (supply from the Lancashire Coast). Properties: Solids in solution and their origin. Salt lakes and inland seas.	

CORRELATION.

8. The work of sea water.
   (*a*) Denudation of the coast: Sea caves. Formation of pebbles and sand: Tides. Deposits of sand on shelving shores: Sand bars and deltas. Dredging.

Sketching of coast lines.

9. Clouds—Formation of clouds. Evaporation. The kinds of clouds noted in the Nature Diary. (Names of clouds and relation to weather).

   Fog, mist and dew: Invisible water vapour and the "steaming" of windows.

10. Ice and its work.

    Frost. Effect of cold on water; changes in volume. Freezing of water in an iron bomb and other experiments. Effect of frost on rocks, trees, etc. Fall of leaves: formation of screes.

    Glaciers and glacial action. Formation of glacial valleys and lakes.

Arithmetic. Volumes of solids.

11. *Nature Diary.*
    (1) Weather Records.
        (*a*) Direction of wind (contd.).
        (*b*) Rainfall. Daily records of rain gauge kept.
        (*c*) Varieties of clouds.
    (2) Observation of the action of water in motion (denudation).
    (3) Observation of the action of water on rocks, trees, soils, etc.

	CORRELATION.
(4) Collection of specimens of rocks on rambles and excursions and during the fortnight at Camp.	

SYLLABUS FOR THIRD YEAR.

Part A. Some machines and how they work (leading to principles of mechanics).	
1. The crow-bar, pump-handle, see-saw, balance, steelyard and the human arm as examples of levers. The three kinds of levers. Exercises on Moments introducing weights used in the decimal system.	*Drawing.* Sketches of apparatus. *Arithmetic.* Arithmetical exercises based on the principle of moments. Data obtained from experiments with levers used in teaching proportion.
2. The wheel and axle (to be seen at work in the streets of Manchester). The crane and windlass (as used in the building of the new Infirmary and the Dental Hospital).	Exercises involving a knowledge of the principle the wheel axle.
3. The pulley and pulley-systems.	Arithmetical exercises on pulleys.
4. The Pendulum. How clocks keep time. Laws of the pendulum.	*Manual Work.* Making of a pendulum.
5. Centre of Gravity. Method of finding it in a sheet of cardboard. Why bodies stand upright. The three kinds of equilibrium.	
Part B. The Weather (leading to principles of Heat).	
6. Temperature of the air. The Thermometer. How it works and how it is made.	*Visit* to the Whitworth Park Observatory.

	CORRELATION.
Maximum and Minimum Thermometers. Wet and dry bulb thermometers (worked with the Nature Diary).	
7. Rainfall. Making of a rain-gauge and the graduation of a test-tube to measure inches of rainfall (§2 of Second Year Course). The use of measuring vessels. The cubic centimetre and its use. (References to Second Year Course.) Completion of the study of the Metric System begun two years before.	*Arithmetic.* Calculation of weight of rain that falls on a given area in a year.
8. The weather-glass. Old forms of weather-glass. The barometer. Boyle's Law. Reference to essay on R. Boyle by T. E. Thorpe.	
9. Winds and other signs of weather. Weather charts.	*Geography.* The Monsoon, Simoon and Trade Winds; Cyclones and Anticyclones.
Part C. A separate study of Heat, including, Conduction, Convection, and Radiation.	
10. The Davy Safety Lamp (Lancashire Coal Mining Industry).	
11. Domestic hot-water apparatus and the heating of public buildings. Ventilation of houses and public buildings.	*Geography.* The Gulf Stream and other ocean currents.

CORRELATION.

12. Differences between the terms heat and temperature. Standards for the measurement of heat: Heat unit: Capacity of a body for heat: Specific heat and methods for its determination.

13. Latent Heats of ice and water: Relation to climate.

14. Heat as a form of energy; the conservation of energy; the heat of the sun and of the fire. The principle of the steam and the gas-engine (electrical transmission of energy).

15. *Nature Diary.*
   (1) Daily temperature readings.
      (*a*) Maximum and minimum.
      (*b*) Wet and dry bulb.
   (2) Daily barometrical readings.
   (3) Graphical representations of (1) and (2) together with the weather records as reported daily in the local press.

Arithmetic. Returns used in working graphs, ratio and proportion.

SYLLABUS FOR FOURTH YEAR.

Part A. Light.

1. Shadows. Experiments to prove the laws of shadows; application to eclipses of the Sun and Moon.

Literature. Newton, a short account of his life will be read.

2. The Looking Glass. Experiments to find the position of the image leading to laws of reflection. Lighting of dark rooms by mirrors.

	CORRELATION.
3. The prism and its effects on rays of light. The spectrum with familiar illustrations. The rainbow. The light-house; reflectors; lighting of cellars.	*Art Work* connected with the colour work of the class. Primary colours and the mixing of colours.
4. The lens as a magnifying glass. How images are formed by a lens.	
5. Application of the principle of the lens to: (*a*) The camera. (*b*) The eye: spectacles and their use. (*c*) The telescope, microscope and optical lantern.	*Physical Records.* Eyes of scholars tested.
Part B. Chemistry and Hygiene.	
6. The chemical composition of water (a product of combustion of all substances containing hydrogen). Proof of its compound nature: Action of metals on water. Decomposition of water by the electric current. Impurities in water and how to test for them. (*a*) Nitrogenous impurities (ammonia). (*b*) Saline impurites (common salt). (*c*) Salts causing hardness. (*d*) Lead. (Reference made to previous work—the "Water Cycle.")	*Drawing.* Sketches of apparatus.
7. Study of oxygen and hydrogen in greater detail. Other methods	

CORRELATION.

of preparation. Properties. Oxidation as exemplified by the rusting of metals.

8. The composition of the atmosphere (chiefly oxygen and nitrogen). Mixtures and compounds.

9. Nitrogen. Its use in the atmosphere. Its importance in the vegetable world. (Refer to those plants which obtain a direct supply of nitrogen from the air by means of bacteria on their roots).

10. Combustion. The burning of a candle. The Bunsen burner: Products of combustion (a gas (carbon dioxide) and water).

11. Carbon Dioxide. Its occurrence in limestone. The burning of coal and the burning of limestone. Preparation and properties of Carbon Dioxide. The term "acid." Action of acids on carbonates.

Breathing—the difference between the inhaled and exhaled air. Action of plants (refer to work of 1st year). Use of plants in the natural economy.

School Camp on the Limestone Plateau of Derbyshire.

12. Foods (compared to a fuel). Combustion in the lungs. Need for food. Characteristics of a good food (milk). Comparison of the values of some

CORRELATION.

foods and drinks such as bread, meat, water; tea, coffee, cocoa; beer, wines and spirits.

Purity of foods and drinks. Simple tests to determine the purity of milk, butter (difference between butter and margerine) and sugar.

13. Digestion of food. The alimentary canal (diagrammatic illustrations). The parts played by the teeth, stomach, small intestine, pancreas and liver. Care of the teeth.

Physical Results.—Teeth of scholars examined by the dentist.

14. The lungs and their work. Breathing. Importance of fresh air and exercise. Nasal breathing. Examination of blood under a microscope. The work of the red and white corpuscles. Arterial and venous blood. Fainting and drowning. First aid (practice in life-saving and artificial respiration at the swimming baths).

15. Clothing. Purpose. Comparison of the values of cotton, woollen and silk clothing. Exercise and warmth of the body (cf. §14). Pores and perspiration. Cleanliness of the body. The composition of soap: nature of laundry processes.

PETER SANDIFORD.
F. W. D. MARSHALL.

CHAPTER IV.

THE FIRST YEAR'S COURSE IN FRENCH.

SINCE the beginning of the movement in favour of reform in the teaching of Modern Languages, which was iniated in 1882 by Professor Viëtor with his pamphlet "Der Sprachunterricht muss umkehren," the Germans have easily held the first place in the working out of the "New" or "Direct" method. For the last twenty years pamphlet on pamphlet has appeared in the German pedagogic press on this subject, and the present writer would like to make some acknowledgement of the help he has received from the writings of such men as Max Walter, Klinghardt and others of various nationalities, who themselves have been influenced by these pioneers.[1]

Here is not the place to enter into a defence of the "Direct" method, if it need any defence, and readers are referred to the books mentioned below and to an appendix to this article, "Processes involved in the acquirement of a foreign language," which is a summary of a paper read before the British Association meeting at York, in 1906, by Professor Findlay. We have in this article to do with the experiences of a year's working with a beginners' class in French in the Primary School.

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[1] Walter (M.). (1) "Der französische Klassenunterricht," 1906.
(2) "Aneignung und Verarbeitung des Wortschatzes im neusprachlichen Unterricht," 1907.
Klinghardt (F.). (1) "Ein Jahr Erfahrungeu mit der neuen Methode," 1888.
(2) "Drei weitere Jahre Erfahrungen mit der imitativen Methode," 1892. (Elwertsche Verlagsbuchhandlung, Marburg.)
Schweitzer. "Méthodologie des Langues Vivantes." (Paris : Armand Colin.)
Jespersen. "How to teach a Foreign Language." (London : Sonnenschein & Co , 1905.)

The class was small; the scholars (girls as well as boys) of the average age of ten years. The class had various teachers, always, however, under the direction of the Demonstrator in charge of the Modern Language teaching in the Demonstration Schools. Instruction in French was given for thirty-two weeks, and at the beginning the lesson periods were of twenty minutes; but in the last half of the session they extended to thirty minutes. There were five lesson periods per week. It is most important in the beginnings of modern language teaching that there should be a lesson every day. It is a question of continued practice leading to the formation of reflex habits, and all teachers will admit the advisability of not having too long an interval between each lesson.

The ultimate object of teaching French is to interest our scholars in the life and literature of our neighbours across the Channel. This can be best attained through the medium of the language. An attempt was made to provide a distinctly French environment. The aim throughout the Course was to induce the mother tongue to fall below the threshold of consciousness and to substitute for it, as a means of communication, the French language.

The syllabus of work for the year can be divided roughly into two parts:—

I. Certain topics were selected in sequence throughout the year, which provided *material* for continuous expression, first in conversation and then in writing.

II. Certain devices of method were adopted, which aided the class to absorb the material.

I. *The Material.*

(*a*) Communication between teacher and scholar in the ordinary class-room phrases and commands must be carried on in French. The introduction of the mother tongue for that purpose would defeat the end we have in view, namely, to keep the English symbols below the threshold of consciousness and to substitute the French language in their place.

(i.) The scholars were given French names, Guillaume, Hélène, Herbert, Marie, etc. At the question, Comment vous appelez-vous ? a scholar would answer, Je m'appelle Guillaume.

(ii.) The days of the week and month of the year were learnt; also the numerals up to 31. With this knowledge scholars were soon able to write the date on the blackboard each morning before the teacher entered the room, and to ask each other about their ages and birthdays.

One of the great difficulties which the teacher has to face is to introduce variety into the teaching. The vocabulary of the scholar is as yet small, and it is wearisome for scholar and teacher alike to have to keep repeating the same phrase, time after time, in order to learn it perfectly. The teacher feels that the scholars are weary of repeating : Je m'appelle Marie, J'ai dix ans J'ai ma fête le 21 avril, and other similar phrases; and yet there is a grave danger of introducing new matter before the old has been properly acquired. One way out of the difficulty is to allow one of the scholars to play the part of teacher and to question the other scholars. By this means the scholars learn not only the answers to the questions, but also to put the questions. Thus new zest is added to the teaching. One of the scholars may play the part of visitor and question the other scholar, who acts the part of teacher, about the class. The French mode of salutation is learnt in this connection. The conversation would be carried on somewhat after this fashion :—

Visitor : Bonjour, monsieur.

Teacher : Bonjour, mademoiselle.

V. : Combien d'élèves y a-t-il dans la classe de français.

T.: Il y a neuf élèves dans la classe de français.

V.: Combien de garçons y a-t-il dans la classe de français ? etc.

Then the visitor would turn to one of the scholars and say :

Bonjour, mon enfant.
Comment vous appelez-vous ?
Quel âge avez-vous ?
Quand avez-vous votre fête ?

The scholars do not easily grow weary of acting parts, and by judicious variations on the above lines the great difficulty of the scholars losing interest is obviated.

(*b*) Further class-room phrases were introduced :—Ouvrez la porte. Fermez la fenêtre. Essuyez le tableau noir. Ouvrez le pupitre. Mettez le crayon dans le pupitre. Prenez un morceau de craie et ecrivez la date sur le tableau noir. Levez-vous. Asseyez-vous, etc., etc.

(*c*) A little play was acted. A young English boy, Charles, visits his French relatives in Paris, and is met by his cousins with their father and mother at the Gare Saint Lazare. The following is a specimen of the dialogue :—

L'oncle : Bonjour, Charles ! Comment allez-vous ? Le train est dix minutes en retard. Voici votre tante, et voici Louis et Jeanne et Clotilde.

La tante : Comment allez-vous, Charles ? Avez-vous faim ?

Charles : Non, ma tante, je n'ai pas faim, j'ai déjeûné sur le bâteau, mais je suis très fatigué.

Les cousins : Pauvre Charles ! etc.

A picture of the platform with the train and our friends of the play was drawn by an artist friend and made use of in the teaching.

(*d*) In connection with the play, simple lessons on the geography of France were given in French.

(*e*) A continuation of the play. The child-characters of the play visit Rouen, and one of them tells in very simple

French the story of Jeanne d'Arc. A series of picture postcards of the admirable frescoes of the Panthéon, which depict the life of the famous Maid, was found of great use in this connection.

II. *Teaching Devices.*

These may be described as grammatical and other exercises, making use of the material acquired in I. They are intermixed at suitable points with the material in I., although practised carefully with a definite aim which the scholars understand.

(*a*) " Gouin Series " Exercises. Class-room phrases, such as : Ouvrez la porte, Ecrivez votre nom sur le tableau noir, were worked out as "Gouin Series." The carrying out of such a command necessitates a certain sequence of actions, and the scholar accompanies each successive action by a French phrase describing what he is doing :—Je me lève, je quitte ma place, je marche à la porte, je retourne à ma place, je m'assieds.

Ecrivez votre nom sur le tableau noir.—

Je me lève, je quitte ma place, je marche au tableau noir, je prends un morceau de craie, j'écris mon nom sur le tableau noir, j'essuie le tableau noir, je retourne à ma place, je m'assieds.

Prenez le cahier de français et prenez la plume.—

J'ouvre le pupitre, je prends le cahier de français, je prends la plume, je ferme le pupitre, j'ouvre le cahier de français, j'écris dans le cahier de français.

Such a " series " was copied by the scholar in his special "Cahier de français" (see below on Reading and Writing), but only after it had been thoroughly learnt orally.

(*b*) Exercises in the Present Tense of Verbs. Material for these exercises is found in the verbs of the " Gouin Series " (*a*). The class is divided into three groups. One scholar plays " première personne." He begins the series, and says : " Je me lève." The second group, "deuxième personne," points to "première personne," and says: "Vous vous levez." The third group, "troisième personne," tell one another or the teacher: "Henri se lève." For the plural, "première personne" is played by two scholars. The scholars may thus work through a whole "Gouin Series" and learn the different person forms of many verbs. The work is not made formal. The results are later tabulated on the blackboard, but it is advisable that the different persons be not learnt as a formula, but repeated time after time with the "Game of the Three Persons," as it is called. In this way they become part of the child's mental possesssions, not as a formal piece of memory work, but as actual experience.

It is also possible to learn the Past and Future forms of the above verbs in the same way. The scholar says for the Present Tense: Aujourd'hui je marche à la porte; for the Past: Hier j'ai marché à la porte; and for the Future: Demain je marcherai à la porte.

It is not advisable to attempt more than the Present Tense in the first year's work with very young scholars. An attempt was made in the Primary School to introduce the Past Tense, but it proved too formal for scholars of that age. This method of introducing our scholars to the mysteries of verb endings, we owe to Dr. Max Walter, whose writings are mentioned above.

Another way of tackling the problem would be as follows:—Take such a verb as s'appeler, which was introduced at the very beginning of the course. The teacher asks: Comment vous appelez-vous? The scholar answers: Je m'appelle Henri. Turning to another scholar, the teacher asks: Comment s'appelle-t-il? Il s'appelle Henri; or Qui s'appelle Henri? Il s'appelle Henri (pointing to Henri). This, too, is an excellent way of keeping the class working together. An inattentive scholar is suddenly asked during the playing of the "Game of the Three Persons: Qui marche à la porte, Guillaume? Every teacher knows the difficulty of keeping the whole class at work in the oral method of teaching a modern language. Such teaching resolves itself very often into private tuition, rather than class teaching. The teacher should insist on every scholar repeating under his breath what the other scholar or scholars are saying. Repetition of a phrase by the class as a whole is also useful as a variation.

(*c*) *Reading and Writing.* Reading and writing should not be introduced too early. The French symbols otherwise tend to call up the English sounds, which those symbols also represent. The general rule would seem to be: learn a phrase thoroughly *orally* before it is written. With the above class Writing was not introduced until the sixth week of the Course, when a dialogue between two scholars as to their names, ages and birthdays was copied by the scholars into their "Cahier de français."

No reading book was introduced during the Course, but a typewritten sheet was distributed to the scholars, containing a short description of the members of the class, their names, age and birthdays—all arising out of the first few weeks' work. This was the first real reading exercise the scholars had.

(*d*) *Singing.* The scholars were from the very first taught to sing simple French action songs: "Sur le pont d'Avignon," "La Bergère," "Chant de mai," "Partant pour la Syrie," etc. The scholars were not told what each single word in the text meant, but they knew the general sense of what they were singing. It was partly an exercise in pronunciation, and it gave a sense of reality to the teaching. The teacher gained much help from a series of phonographic "records" prepared by Mrs. Frazer, of Cambridge. The scholars did not hear the phonograph; the teacher used it for private preparation before the lesson. The scholars in their drawing lessons also drew the scenes depicted in the songs. Young scholars might always be encouraged to draw the scene of a story or of a song they are learning. They thus get a more vivid experience.

A diary was kept by the teacher in charge of the class of all new words learnt, noting lesson by lesson the order of acquisition. The results of this investigation are tabulated below:—

(*a*) The vocabulary analysed according to the parts of speech.

(*b*) Number of words learnt each week.

A similar investigation will be carried on during the coming school year; classes vary in their power of acquiring a language, and the results of repeated investigations will be interesting for purposes of comparison. The particular class on which these notes are based was difficult to manage and on the whole progress was slow. Again, a single experienced teacher would have accomplished more than the student-teachers who had charge of the class for the greater part of the time, and who were quite new to the work. These are, however, difficulties which are peculiar to a Demonstration School, which has as its aim not only the teaching of children, but also the training of teachers.

(*a*) Analysis of the vocabulary:

Nouns (1) Common	73
(2) Proper	54
Adjectives	12
Numerals	40
Verbs	40
Adverbs	14
Prepositions	5
Conjunctions	2
Pronouns and Pronoun Adjectives	14
Miscellaneous Phrases	4
Total	258 words.

Dependent sentences were not introduced in the First Year's Course; hence, there are in the above list no relative pronouns and no subordinate conjunctions. The nouns and the verbs make up about 60 per cent. of the total vocabulary learnt in that period. The words occurring in the songs are omitted, because the songs were introduced for the specific purpose of improving pronunciation, of giving variety to the teaching, and of affording the scholars some æsthetic enjoyment. As time goes on these songs will be more and more appreciated by the scholars, as their vocabulary enlarges and they begin to grasp their full meaning.

(*b*) Number of words learnt each week:—

Week.	Words.	Week.	Words.
I.	32	XVII.	3
II.	22	XVIII.	3
III.	24	XIX.	22
IV.	10	XX.	0
V.	5	XXI.	0
VI.	6	XXII.	2
VII.	1	XXIII.	0
VIII.	6	XXIV.	8
IX.	10	XXV.	29
X.	0	XXVI.	3
XI.	3	XXVI.	16
XII.	7	XXVIII.	6
XIII.	3	XXIX.	6
XIV.	3	XXX.	6
XV.	2	XXXI.	9
XVI.	0	XXXII.	11

Total in 32 weeks...... 258

In the first few weeks, naturally a large number of words were learnt. Then we have a number of weeks in which fewer new words were acquired—a period of mental digestion of the new material. In the tenth week no new words were learnt. In that week the scholars had practice in writing down in their Cahiers de français a dialogue, which contained much of what they had previously learnt, and in reading from the type-written sheet which had been distributed (see above). The fifteenth and sixteenth weeks were the first weeks after the Christmas holidays, the lessons were spent on revision, and only two new words were introduced. In the nineteenth week the French play was begun, and many new words were introduced, perhaps too many, but the scholars were keen on having the whole of the little scene. The following two weeks, XX. and XXI., were spent in practising the play and in general revision, and no new words were learnt. A new song was, however, introduced, and exercises in telling the time were begun; these latter brought in only two new words —demi and quart. In the twenty-fifth week lessons on the geography of France began, and a host of new words were introduced.

With these figures before us, it will no doubt be possible in future to model the Course in such a manner that new words are introduced in a more regular fashion.

Looking back over the year's work, we may say that what we set before us, we accomplished. The beginnings of French teaching are far more difficult than those of German. Later, however, progress is much more rapid in French than in German. The pronunciation of French is much more difficult for the Englishman than German. The sounds are not so distinct, and there is not that close analogy between the two languages that exists between English and German, and which facilitates the acquirement of the latter in its elementary stages.

C. E. STOCKTON.

APPENDIX.

Abstract of paper presented by Professor Findlay to the British Association Meeting at York, August, 1906:—

PROCESSES INVOLVED IN THE ACQUIREMENT OF A FOREIGN LANGUAGE.

1. The investigations which the author undertook commenced in 1891 (after the visit of Professors Passy and Viëtor to England) and have been continued under varying conditions up to the present. The specific problem presented for discussion is the mental processes at work in acquiring a foreign language (leaving on one side the ultimate aims presupposed by a teacher).

2. The writer observed and noted (*a*) his own experiences; (*b*) those of fellow-students when acquiring a foreign tongue; (*c*) children and students in small classes, sometimes taught 'intensively,' (*d*) classes in a school in Cardiff, 1898–1903, in which he was able, with exceptional freedom, to direct a co-ordinated scheme of teaching, extending over five years; the classes were taught by a number of able assistant masters, who co-operated on common principles of teaching:—the results were annually examined in detail by the Central Welsh Board (younger scholars orally, older scholars also in writing for junior and senior certificates); these reports are available for reference.

3. The important phenomena may be summarised thus:—(1) The process is fundamentally one of acquiring habits of automatic reaction in the association of foreign symbols with ideas. (2) Distinctions between reading and hearing, speaking and writing are of minor importance. (3) The employment of language (native or foreign) is a synthetic, not an analytic process; the recognition of the single symbol is merely a step (and often an unnecessary

step) towards the immediate recognition of the general sense of a passage. But an equivalent in the vernacular may often be suggested for a moment and then encouraged to sink below the threshold of consciousness. (4) In contrast with other arts (compare, *e.g.*, golf) the special hindrance encountered in acquiring a second language is due to the extraordinary resistance of the native speech 'centre.' (5) Hence to the beginner the path of least discomfort is to interpret the foreign symbol *through* the native symbol, and thus to set up a translation habit, which is really a bar to progress, since objects of thought can only be symbolised with effect when the objective, the thought, is *directly* expressed by the symbol appropriate to it. (6) When once the establishment (mental and physical) of a new speech centre is begun, *with its accompanying set of experiences,* the force of resistance rapidly diminishes. (7) The rate of progress depends (*a*) upon the intensity of the learner's absorption in the new art during the early stage; (*b*) upon suitable environment with appropriate objects of thought. (8) When the new habit is established in only a small degree traces abide for a great length of time, *and can be easily recovered.* (9) A month's residence among foreign people or a year's course of school instruction suffices to overcome the resistance in its earliest and strongest stage. (10) The use of a special phonetic script is of doubtful value to learners, except to adults who have received a philological training. (11) The study of changes in nervous function accompanying the mental process are not at present adequate to confirm these conclusions, but inquiry into cases of aphasia among bilingual people may be expected to throw some light upon the nature of brain centres for foreign speech. (12) The attempt to 'establish' two foreign languages at the same time should not be made; each tends to inhibit the other. French, *e.g.*, should hold the field for three years at least before German or

Spanish is introduced. Latin, however, taken on a translation method, does not appreciably interfere.

4. New factors presented when classes of twenty-five to thirty-five are taught together. (1) A body of teachers are needed who can be relied upon to carry through the experiment over several years.[1] (2) The general efficiency of the school life and teaching *in other departments* affects vitally the issue in success or failure. (3) Detailed preparation for each portion of the work by the teacher is essential; teachers can seldom find time for such preparation when in full practice. (4) Progress is hindered by the incapacity of some scholars to apperceive new sounds; on the other hand, the stimulus of numbers (here as in all branches of teaching) aids progress.

5. In order to carry through an extended piece of work of this kind, the teachers concerned need to come to some agreement as to the working of cause and effect in mental development; so long as 'direct' methods of teaching are regarded as leading to enfeeblement of mind, it is unlikely that analytic methods will be discarded. This applies still more to the methods adopted by examiners and inspectors.

6. This paper is submitted as an example of the way in which problems in school teaching may be fruitfully investigated. It is obvious that no finality in quantitative results can be recorded such as are forthcoming in more familiar fields of scientific investigation. But it is submitted that it would be feasible, by adequate inquiry (with a check upon varying data and conditions), to secure records vouched for by competent authorities which would help to solve some controversies. But such investigations must extend over a period of years, and the 'results' must be sought in the positive attainments of the scholars at the close of the period.

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[1] The author should express his indebtedness to his colleagues who had charge of the French teaching in this school. Most of the success of the prolonged experiment at Cardiff must be attributed to them.

A number of such reports have been published in Germany during the last twenty years, but it seemed best for the present purpose to confine this report to personal experience. The standpoint as to mental process is elucidated with great skill in "Der psychologische Zusammenhang in der Didatik des neusprachlichen Unterrichts," von Dr. B. Eggert (Berlin, Reuther u. Reichard, 1904).

CHAPTER V.

THE CORPORATE LIFE OF SCHOOL.

In the above chapters it has been shown how the programme of a Demonstration School can be utilised by a University Department, firstly, as regards inquiry into the Mental and Physical Life of School Children; secondly, into Principles of Teaching. But a keen student will learn much more. For every school, small or large, displays its own corporate, social life; the scholars themselves become objects of personal interest; school management and discipline are illustrated in the daily course of school events. It has been remarked on every hand how greatly the interest of students of Education has increased since these schools have been opened. The fact is that the current life of a community, with its individual sympathies, practical difficulties, daily endeavour, proves attractive; students feel that it is real work with a real purpose in view. These boys and girls have got to be well looked after, both in lesson hours and otherwise. A student finds that he is learning to face practical situations, and not merely to qualify in a public test before an inspector or examiner.

In this region of corporate school life there is much which cannot be planned or analysed, but there are two features of our work which have received special attention, and some account of these may be of interest; these are (*a*) the relation of parents to the school; (*b*) the transfer of the school (teacher and scholars) to the country for a fortnight in July.

Parents.

It need scarcely be pointed out that the relation of parents to the school is a matter of great public interest.

In English politics the question has chiefly come to the front in connection with religious differences, but that is an accident of the times. Obviously the interest of the parent extends to the school as a whole, since the entire life of the school exercises influence on his sons and daughters who attend it. All schools which are subject to competition in order to secure scholars take measures to bring parents to the school premises, to show them the brighter side of school life. Entertainments are often prepared as an avowed means of advertising the place; prizes are awarded for the double purpose of stimulating industry and of providing a popular public function.

But the value of such proceedings—from the standpoint of any sound ideal of education—is open to criticism; parents ought not to be asked to judge of the worth of a school by its display on such occasions. Nevertheless, the fact remains that parents feel an interest in the life of the place, and children like to have father and mother there; the sense of proprietorship is strong on both sides. And the parent has surely some claim to know what the school is doing for his child. Prospectuses tell him something. He can of course learn a good deal from talk at home; without betraying any school secrets, a lively boy or girl has much to reveal. Where home lessons are set still more can be noticed; and even the dullest schools give occasion at rare intervals for interview or correspondence between parent and teacher. Nor is it a matter of small importance, in dealing with a scholar, for the teacher to know what father and mother are like, on occasions more suitable than the public gatherings noted above. Hence there have from time to time been attempts made to organise in some way this relationship of mutual interest, so as to help both sides for the common welfare of the scholars.

In Manchester a plan of the kind has, I think, been in operation for some time at the Cheetham Higher Grade School, and at the Grammar School conferences with parents have been held. My own attention in the matter was first claimed by witnessing the plan adopted by Professor Rein and his staff at Jena in his well-known *Uebungsschule.* I was so impressed by the value of his methods that I decided, when placed in charge of a school at Cardiff, to imitate these, and from 1898 to 1903 we held a succession of Parents' Evenings, carefully planned with the intention of recognising the parents as an essential, although subsidiary, element in the corporate life of the school. When the Upper School was opened we adopted the same course, and for two years these gatherings have been an important feature in the life of the school. At the Primary School since January 1906, the same course has been followed. I could, if need be, offer very striking evidence of the value—on a low plane as well as from the highest standpoint—of this feature of school life; but as I describe the plan adopted it will be seen that good results must necessarily ensue. First of all, the occasion is one in which the scholars are hosts; of course they need and receive the guidance of their teachers, but the moral value to the scholars depends largely on their being allowed to feel that the school is theirs, that it is they who are receiving father and mother. The provision of slight refreshment gives the youngsters an opportunity of playing the part of hosts.

Thus, the first act in a Parents' Evening consists with us of a reception, and as these gatherings are repeated term by term, not only do teachers and parents become acquainted, but parents get to know each other; and it will be seen below what a valuable aid this is to the welfare of a school. The reception may occupy half an hour or more: there are a good many introductions to be made: teachers often have things to say to individual parents, and have been waiting for this evening to say them: a little boy will be very keen to introduce his mother to Miss X., whom he has been talking about for weeks past at home.

There are other things, however, to do besides talk. The gathering has ostensibly been summoned to show parents what the school does with itself day by day, and the material results, in drawings, exercise books, workshop, desks, etc., are there ready to be seen. Obviously everything is seen at its best, and excellent it is for all concerned to have an occasion on which things have to be overhauled and put in the best shape for so interesting an inspection. A good many school pursuits need explanation: sometimes one can see a teacher explaining to a knot of parents the meaning of some apparatus which her class has been using. Naturally, of course, each child wants his own productions to be seen by his parents, and he does not mind even if his work is clearly not the best in his class.

But another plan has to be adopted when it comes to showing how the school employs itself in literature, reading and music. These demand performance, and so, as the second act in the evening, the parents are collected together and listen to a selection made from the work of the term, the best performers naturally being chosen. The occasion is probably reminiscent of examination days which were so important a feature in bygone times in Elementary Schools (more so perhaps in the United States than in England), and the "Speech Day" ceremony of English Public Schools retains some of the same features.

To serve any real purpose, the items of this programme must be taken from the normal occupations of the school; if dramatic, literary or musical work is specially selected for such occasions as something likely to be more pleasing to the audience than the daily routine of the classes, a triple mistake is made. First of all, an additional heavy burden is thrown both upon teachers and scholars; secondly, the daily routine is slighted and concealed from view; thirdly, the parents can form no judgment of what the school on a whole is doing, they are merely listening to a show entertainment prepared by a few gifted pupils. At our last Parents' Evening the scholars in each class were allowed to choose for themselves out of the essays written in the previous week, and the essay of their choice was read to the parents.

It will be noted, here as in the case of school apparatus and material, what a valuable reflex influence this occasion has upon the motives inducing scholars to effort. It adds, in their eyes, a new dignity to class lessons when young children realise that their daily work is good enough to form part of a programme at a Parents' Evening. This is a better stimulus than the offer of a book prize to the top scholar, or the fear of punishment for the worst; the entire class are spurred to exertion in order to help everyone to feel that the work is worth being presented to this friendly audience.

But by this time the evening is getting on. In the third act the company divides into two parts: the youngsters retire to consume what victuals have been left over by their hungry parents at the reception (one case is reported of a greedy boy, although ostensibly acting as host, warning his mother to leave plenty for him!), their elders stay behind for a while to hear an address, to join in a discussion, or even, as we shall see below, to take part in an election. The occasion is appropriate for an address: the parents can be shown how the literature and history studies are helping to develop ability and character: they can be shown how the practical arts pursued in the school serve the same purpose: their anxieties as to progress in the three R's can be allayed: their inquiries as to methods of discipline can be met: they can be made to feel that their own highest and deepest desires for their children's growth in character and virtue are shared by the teachers and are held in view in the daily life of the place. Teachers have perhaps been week by week meeting with difficulties and feel that parents misunderstand, or fail to support, some particular method of the school : now is the time to clear this up and to have a frank exchange of opinion. Naturally, when such gatherings are first started, the speech-making is all on one side. Parents are a little afraid of the professional knowledge of the teacher and feel themselves at a disadvantage, but this strangeness soon wears off, and sometimes a lively interchange of views takes place. I have noted above that occasion may also be taken to hold an election, and elections have been held during the present session in both schools. When we found that parents were becoming so genuinely interested it semed worth while to seek their co-operation, not only through their contact with the staff, but also to give them some opportunity of working with the School Committee. Provision was therefore made in the bye-laws of the Fielden School (see below, p. 114) for the election of parents' representatives; and the Trustees have now approved of this addition to the Committee for the united schools (see Appendix B). The mode of election is worth noting. No one has a vote unless he comes to the meeting, no proxies are allowed, and father and mother have each a vote. The parents are free to elect either fathers or mothers; at present one father and one mother are representatives.

The parent representatives have attended Committee meetings with regularity, and have already rendered material assistance. It will be observed, I think, that the institution of Parents' Evenings, as above described, makes a substantial difference to the nature of the service which their representative can render. The election is not a *formal* official affair done by ballot papers through the post by a clerk to the Governors (in one or two cases I have known this to be the *modus operandi,* and I was not surprised to hear that the result was disappointing) :

it is an election by people who are already interested, who know their representative, and who expect him to co-operate with the Committee and the teachers for the good of the school.

We have so far held one such gathering in each of the two winter terms; but a third gathering is held under still more unusual circumstances. A day is selected in July, while the school is out at Camp in the country, and the parents take train together and spend a half day with us there.

The School at Camp in the Country.

This brings us to consider a second feature of the life of these Demonstration Schools. We have arranged to transfer the school for twelve days to a remote hamlet in Derbyshire. Here again we cannot claim to be pioneers. We have witnessed in Manchester the remarkable success of the Country School for Town Children established through the efforts of the Rev. Nugent Perry, and it seemed to us that the benefits of such a transfer, even for a short period, are so pronounced that we could not do better than attempt a similar experiment. In 1906 we were indebted to the Ancoats Lads' Club for the use of their delightful cottage and tents near Marple, above the Strines Valley. This year we have the use for a fortnight of the Holiday Home at Great Hucklow, specially built to suit the needs of school children by the Manchester Sunday School Association. Here there are beds, dining hall, etc., sufficient to receive all the scholars of both our Demonstration Schools together with the teachers; and we have also been able to accommodate a few students. The cost to the parents, including the travelling from Manchester, has only amounted to £1 per head for the fortnight. The great majority of the parents highly appreciate the opportunity. One or two have demurred, and it is interesting to note their objections. They consider that children's holidays are already long enough; they themselves take their family into the country when they require change, and hence they do not regard it as the business of the school to take their children away from Oxford Road. Fortunately only one or two raised such objections. The subject had been the theme of discussion at a Parents' Evening, and the approval given to "the School Camp" was quite emphatic. As the schoolhouse in Manchester is closed during the Camp weeks, it becomes doubly important to secure this adhesion, since the children who are deprived of "Camp" will be deprived of school during those two weeks. The forethought and planning required to secure the maximum of educational benefit is very great, and it may be worth while to summarise the arguments used to convince parents of its value:—

(1) Two weeks simply of exchange from city air to mountain air, 1,000 feet high, is not to be despised. Even for children who go constantly to the country or the seaside during holidays an extra fortnight is valuable. And the great majority of children do not go to quiet country places: the crowds, the noise, the excitements of Llandudno or Scarborough repeat in milder shape many of the nervous irritants that affect the growing organism in the city. The relation of cause and effect cannot be proved by statistics, but from the after results one is bound to conclude that there is decisive physical benefit not only to heart and lungs and digestion, but to the entire nervous system. And in this connection an elevation of 1,000 feet is in summer time still more useful. Whatever may be the case with grown up people, there can be no question that city life is unfavourable to the growing child: the period of growth makes double demands, and every day spent in the country rather than the city is to the good.

(2) So far our enterprise merely repeats the advantages that are now provided in many ways by charitable

organisations for the children of the very poor in all large cities. They are placed in country cottages, and roam freely for a week or fortnight. But we hope to achieve a good deal more. For it is the growing mind no less than the body that suffers from the artificial environment of the city. Mental experience is limited by what is seen and felt and heard. Even among our own children we have met with startling evidence of the divorce between nature and man which is created by the life of streets. It has been noted above (p. 31) that the little ones have visited a farm three miles away and have seen the cows milked. Soon after a father came to see the Headmistress and reported with grave anxiety that his little girl now refused to drink milk because the process of milking seemed to her so offensive! If such ignorance were merely a matter of the names of common plants and animals it might be overlooked, but it goes much deeper: it means that our city children are cut adrift from the primary facts and experiences on which all homely natural life must rest. And this ignorance is not confined to "slum" children, it reaches much higher in the social scale. Now the problem is not solved merely by setting the child for a time in the country environment, for the observation and the sympathies need to be guided, the attention must be directed to note and to compare; otherwise the townsman (child or adult) when he goes to the country merely receives a blurr of new and pleasant impressions which leave nothing behind for future use. Hence our teachers have made careful preparation for "Camp" by planning series of lessons in the previous weeks which anticipate the opportunities offered by the new life, and so enable the scholars to look with open eyes; they got ready to sketch a scene, to draw a plant or animal, to hear the voices of birds and the sound of running water. Then when Camp was reached each day's programme included some distinctive school occupation which made the excursion of marked benefit in intellectual and æsthetic culture. Thus a short period of twelve days makes a more profound impression than is indicated by the mere number of days. Camp is merely the realisation and expression of many images that the mind has pictured beforehand. And, indeed, experience like this can never be fairly measured in units of time: it is the novelty, the vividness of an experience that counts; here, as in other matters, we may live through much in a few hours.

(3) But this is not all, nor, to my mind, is it the most important element of experience gained in Camp. I am treating this topic in connection with the Corporate Life of School, because in Camp we may find the best expression of a child's life in regard to his fellows. The child, like the man, only grows in moral experience through social experience, through living with his equals in society, and the school supplies for all children comradeship, the give-and-take of common life. True, the child is still a home-bird and does not want to fly far from the nest, but he does want to try his wings. Now in the day-school many opportunities for the cultivation of genuine corporate life may be devised, in addition to the life of the class-room, but our English traditions in schooling show how much can be done for mental and moral development by placing boys in a good boarding school. Now the Country School is a temporary boarding school: by taking scholars who are already friends in the day school away from the home, it intensifies their corporate life, and, without their knowing it, satisfies their instinctive desires for independence and for friendship. Nor are the parents entirely excluded: as we have noticed above, they will come to visit us while Camp is in progress.

At the Holiday Home, Great Hucklow, where we have kept school this year, provision is made for cooking, service, attendance, etc., just as in a boarding school, and the children have no duties by way of caring for their own wants, beyond waiting on each other at table. In 1906 it was different: the children and the teachers were really at "Camp," sleeping in tents and taking their meals and cooking them in a small cottage. It is difficult to say, from the standpoint of sound educational ends, which plan is the best—probably we shall be able to hit off in time some sort of compromise which will offer the advantages of both places. On the one hand, when people really live in Camp, especially people with little experience of domestic needs, and with a limited purse, almost the entire day seems to be taken up with such concerns, and little time or energy is left for study, or even for excursions. On the other hand, our experience at Marple showed what a high moral value must be attached to an experience whereby children are really put to "service." It is often supposed that only the wealthier classes let their children grow up in ignorance of, and in contempt for, daily domestic toil: this is far from being the case. Owing partly to false ideals of Education, partly to perverted notions of social advancement, a large percentage of children attending Elementary and Secondary Schools grow up without any proper experience of the humble primary tasks which have to be fulfilled in every household. The public school boy, as a fag, learns something of this, inheriting a tradition of service which comes down by curious windings from the mediæval household; and at the other extreme the children of the very poor have it with them all the while. This is not the place to enlarge upon the grave problem in Education here involved. Our public authorities are perhaps trying to grapple with it under the guise of domestic economy, but it can scarcely be approached in any fundamental fashion by the day school. When, however, our scholars are brought to Camp they are glad to be socially active: their instincts lead them to service, and they are willing to learn something of the "drudgery divine" of which George Herbert wrote. I should personally be very sorry if social scholastic prejudice made it impossible for us in the future to retain this element in the organisation of our School in the Country. At the same time, it needs to be so planned as to leave time for proper attention to lessons, such as I have outlined in paragraph (2).

J. J. Findlay.

N.B.—Since writing the above, the Board of Education have issued a Special Report on School Excursions and Vacation Schools (Wyman and Sons, 1908, 5½d.), which deals with many enterprises similar to ours. On p. 20 the author refers to the Fielden School Camp at Great Hucklow.

CHAPTER VI.

THE CONTROL AND FINANCIAL SUPPORT OF DEMONSTRATION SCHOOLS.

It is not wise to place a Demonstration School immediately under the control of the Governing Body of an institution for Training, although the Governing Body ought to have a final voice in determining the constitution of the school. It is not wise because the school is a society by itself, of a type distinct from that of the College; true, it is called into being for the sake of the College, but the scholars and their parents claim a "management" adapted to their own requirements. In the case of a University such an arrangement would be still more unwise, since the whole system of University government is based on the needs of students who have passed beyond school age: the machinery of Senate, Council and Court is out of place in the control of a school. The experiment has been tried once or twice in England and has been abandoned (*e.g.*, University College School has just recently been cut loose from University College).

Both the Fielden Upper School and the Primary School were started tentatively, through the efforts of a few subscribers who formed a Committee acting in independence of the University. All that the University was asked to do was to sanction the attendance of students, for the purposes of observation and practice, and to permit the University staff to supervise the teaching given in the schools. This, however, was obviously a temporary arrangement, and was most happily brought to a conclusion by the generous gifts of Mrs. Fielden, of

Centre Vale. By the endowments she gave to the University in 1898 she had already enabled the Council to establish the Sarah Fielden Chair of Education, and in 1905 she offered property in Lime Grove, together with the sum of £4,000, as the nucleus of an endowment fund to place this Demonstration School work on a permanent footing. An extract from the *University Magazine* is added in the Appendix, showing how devoted Mrs. Fielden has been during her long life to the cause of school reform. The trust has been accepted by the University, and the extract from the Deed printed below shows how the Committee is constituted. Both the schools are now to be conducted under the terms of the Trust. Mrs. Fielden has it in mind to add still further to her gifts, and by the time this volume is issued we hope to be able to make public announcement of the plans proposed for a new site and buildings. It is intended to continue both schools, under the general name of "The Fielden Schools," the Upper School being in charge of a Headmaster and the Primary School and Kindergarten of a Headmistress. The Bye-Laws printed below show the arrangement at present adopted; subject to any modification which may be approved hereafter by the Trustees, these will serve as the basis for working the schools. The endowments and subscriptions will be administered for the benefit of both. It is not anticipated that these funds will provide all the resources which are required, but the generosity of subscribers has so far enabled the Committees to meet their obligations, and it is anticipated that before long Government will have found a way to assist the work as part of the necessary equipment of a Training College.

In the constitution of the Committee under the Trust, care was taken to ensure an adequate representation of the various interests involved. Two representatives of the Council, together with the Treasurer of the University and the two Professors of Education provide the adequate control by the Trustees, while a representative of the Local Education Authority enables the school to be brought into relation with municipal education. The Chairman of the Manchester Education Committee, Sir Thomas T. Shann, has been good enough to accept nomination, and it need hardly be said how greatly we appreciate his help. While these Demonstration Schools can scarcely be regarded as included within the provision made by the State for public education, it is obvious that they come within a general survey of the resources provided within the area : if these schools were not there the hundred or more scholars whom they receive would require to be educated at the public cost in other schools.

Provision is made in the Trust Deed for the choice of representatives by the parents. An account of the relation of parents to the schools is given above (Chapter VI.), and this experiment has proved so beneficial that it will doubtless be continued and form a permanent feature.

So far as the management of the Trust property is concerned, it is looked after in the University office, since the University Council is associated with Mr. Alfred T. Bentley as Trustees, and our thanks are due to the Bursar for the attention and help he has given.

We are often asked as to the type of scholars who are received, and it may be answered that while there is no question of excluding any applicants of suitable age and attainments, the fee (1s. to 1s. 6d. per week) practically settles the matter. We need the help which these fees afford, and parents pay without objection, although it is understood that, if any exceptional cases offered where a parent found the fee to be a serious difficulty, the Committee would not let that stand in the way of retaining an industrious scholar. There are a large number of parents in the neighbourhood who are glad of the opportunity of placing their children in a school where the classes are small, where interest is taken in each scholar, and where the plan of tuition, without reaching to the level of a Secondary School with high academic work, goes beyond the programme of the ordinary Elementary School. This group of the population, families of strictly moderate means, in the suburbs of a city, tends to be stable; the children are likely to stay with us until their schooling is finished at fifteen; and for our purposes this is an important consideration, since we wish to retain our scholars under observation for several years. Our records (see p. 6 above) will be far more valuable if we can make up an account of the progress of a number of cases from four years to fifteen years of age.

The staffing of the schools has been considered with great care. The lecturers and demonstrators on the University staff take a great interest in the work, and hence need to take some share in the teaching in order to supervise students or conduct research while supervising students, but they cannot take the place of class teachers. We endeavour to arrange a class teacher for each class, who does not take that class for every lesson of the school-day, but makes that class his special concern; this ensures that the detailed control of the daily work is not neglected. In schools where so many people, students, demonstrators, visitors, are coming and going, there would be a danger of the children being left out of sight unless provision was made in this way for class teachers. Outsiders indeed often suppose that children *must* suffer in such a school, and so they would unless the staff were carefully chosen with this end in view. The junior posts are filled either by graduate students of our own University who have completed with credit the Course in Education, and who now take advantage of the opportunity to pursue their professional studies to greater lengths, or by teachers of some experience who seek the appointments for a similar reason. We are thus able to keep going a succession of advanced students of Education doing work analogous to that pursued by graduate students in other departments of the University or in the Medical School.

The University has now recognised the system by supplementing the emolument of two of these teachers, one in each school, in consideration of the fact that they are assisting in the oversight of groups of students who attend the schools for observation and practice.

It will thus be seen that the scholars of these schools have a great deal of attention devoted to their welfare, and while the work may in one sense be called experimental, it appears, as a matter of daily practice, to be very like that of other schools, except that far more people are engaged in it, and everything which is done is subject to more criticism and revision than is possible under ordinary conditions (see Chapter II. above),

The Headmaster, the Headmistress and the University Staff are all people of wide practical experience in schools; the junior class teachers are younger, but are specially chosen for the promise they have shown in school work. Hence it is not surprising that parents are well satisfied, and regard the Demonstration School as a second home for their children rather than a place of experiment.

One important problem in administration remains—the relationship in which these and similar schools will stand to the State. There exist in connection with most of the older Training Colleges, schools which have served somewhat the same purpose, but they were established before the days of School Boards and took the character also of Public Elementary Schools, supplying a portion of the provision for compulsory elementary education, and receiving grants of the same character as those dedicated to other Elementary Schools—and, although their origin was due to the special needs of students—they have never been "recognised" specifically for that purpose; indeed, there is no machinery at present devised by Government in order to make such recognition possible. We have in fact another of those anomalous situations so common in English administration—an institution established and used to suit one set of conditions, but inspected and aided under the guise of another set of conditions. Hence it has become increasingly clear that the interests of the work will be best secured by putting the school for Demonstration and Practice in *a category of its own, inspected and aided as part and parcel of the work of the Training College for whose benefit it exists*. The character of the school, the staffing, the number of classes, all depend upon the needs of the students; it is, from this point of view, a kind of laboratory or workshop equipment. Hence it has been proposed that instead of giving grants-in-aid, as is usual in other schools, *per capita* of scholars in the school, the grant should be given *per capita* of students in training, for the expense of the school will obviously be regulated by the number of students who require to work in it at one time. Such grants would be similar to the grants made until recently for Training College instruction in Science and Art.

By thus separating the Demonstration School from other State-aided schools, an additional advantage is secured. It will come under the right sort of inspection; its work will be reviewed by those who are in sympathy with its special aims and needs, viz., by the Inspectors of Training Colleges. Such a school must have abundance of freedom in its arrangements, for it exists partly to illustrate new methods and principles for which the ordinary schools are not yet ready. If its detailed arrangements were to be subjected to the rules of local and central authorities which, necessarily, govern the large school system, half the value of the Demonstration School would be lost. Nor need the authorities which render financial support have any fear that this freedom will be abused to the detriment of the children. Even if the experience of a Training College staff could not be trusted, it may be assumed that inspection by Government Inspectors of Training Colleges would suffice to throw light on any dark places. And, as we have remarked, these schools are at all times very much under the public eyes. Training Colleges are the centre of a great deal of inquiry, and visitors constantly come and go; by their very constitution they are compelled to keep up a high standard, for when they fail to do so they throw discredit upon the authorities of the College.

In proposing, however, to place the Demonstration School under such control, one grave danger may be incurred—the efficiency of the school as a place of real education may be sacrificed to demands for showiness in equipment and in external results. Demonstration Schools in various parts of the world have already suffered harm from this source: it is supposed that the equipment must be of the most costly and up-to-date kind in order to exhibit to students the best "model" of what can be accomplished. So far, indeed, has this tendency gone that in two of the most famous institutions for training an expensive and "classy" model school is provided as an exhibition for public use, and students are almost wholly excluded from working in it: while a humbler school, attended by children in poorer circumstances is provided in order to do the real work of training, *i.e.*, of demonstration by lecturers and practice by students.

In the opinion of the present writer, this separation is disastrous, and can only be avoided by frankly admitting that the purpose of the Demonstration School is for business and not for show. Certainly such a school needs all the money it can get for proper equipment and apparatus, but it needs money far more to provide a good fund for salaries, so that skilled assistance can be secured without anxiety.

And this mistaken view, that the Demonstration School should be set up as a model in matters of external equipment, leads to further misunderstanding as regards the use that can be made of other good schools as aids in training. Within reach of every Training College there can usually be found new buildings, equipped with the latest improvements, the pride of the locality which has erected them. In these schools students will gain a part of their experience (see p. 41 above), and it is a fatal error to attempt to set up the work of a Training College as in any sense a rival to the good work being done by authorities in the neighbourhood. It cannot be too constantly borne in mind by those concerned in the Demonstration Schools that their special function is to afford a workshop for demonstrators and students, with an intimacy and thoroughness that cannot be allowed in the large public schools. And, as a corollary, it is essential for the student to obtain a part of his experience in large public schools, apart from the special conditions of the Training Colleges, so that he may become accustomed to the ordinary conditions and limitations of the teacher's life.

It seems necessary to enter fully into these points of organisation and control because the problem is comparatively new to those who organise Education, and grave errors may be easily committed unless the ground is carefully surveyed.

From the standpoint of the public funds the expense would not be great, even if every Training College were equipped with a useful Demonstration School of some 200 scholars. At the time when public opinion recognised the need for proper equipment of laboratories and art rooms, a grant of £3 per student was found enough to meet the demand, and a similar grant would meet the present case, if some additional help were provided for buildings at the start. And this aid would not be entirely an additional burden on the public purse, for the children educated at a Demonstration School need to be taught somewhere, and if they were not received in such a school additional accommodation would be required for them in neighbouring schools.

If, therefore, the Board of Education can once be induced to accept the principle of approving such schools for this one purpose as part and parcel of Training College equipment, there would not appear to be any serious difficulty in adopting a suitable mode of organisation.

J. J. FINDLAY.

CHAPTER VII.

HANDWORK IN HISTORY TEACHING TO CHILDREN UNDER FOURTEEN YEARS OF AGE.

By Grace Owen, Dora Walford, M. E. Sadler.

History is one of the subjects which are required to be taught in every public elementary school in England. The Regulations state that it should include, in the lower classes, the lives of great men and women and the lessons to be learnt therefrom, and, in the higher classes, a knowledge of the great persons and events of English History and of the growth of the British Empire. It is added that "the teaching need not be limited to English or British History, and lessons on citizenship may be given with advantage in the higher classes."

Another requirement of the Code of Regulations is that drawing should be taught in all public elementary schools. Drawing is to include "drawing from actual objects, memory drawing, brush drawing, and the use of ruler and compasses, which may lead up to exercises in practical geometry and the drawing of objects to scale; with other simple hand and eye training. . . ."

The following pages describe methods of history teaching, correlated with drawing, with simple handwork and with other parts of the curriculum, for children of elementary school age (6—14), which have been tried with success in the Fielden Primary School, connected with the University of Manchester, and at the Village Hall School, Weybridge.

History is the description and interpretation of human effort and aspiration, viewed in their physical setting, in their economic activities and in their spiritual significance. The three chief aims of those who teach history to young children are

(1) To foster love and reverence for admirable example;
(2) To make the mind familiar with the idea of the development of human institutions; and
(3) To cultivate an accurate sense of time-relationships.

Of these, the two first-named are educationally prior to the third, and essentially the more important.

The value of combining drawing and simple handwork with parts of the history teaching is three-fold. It gives the children opportunity for self-expression. It trains them to endeavour to realise vividly the historical events about which they are learning. And it impresses what they learn more firmly upon their minds than is done by oral teaching alone. Moreover if, as an introduction to the study of history, the course illustrate the development of primitive life and industries, the children are helped by it to realise the fundamental importance of that adjustment of means to ends which is inseparably connected with man's development.

It is clearly desirable that, in the teaching of history to young children, we should be guided by some principle in the selection of topics and materials. Some central idea (not necessarily formulated in words to the children and certainly not presented to them in an abstract form) should run, like a thread, through the course. In some later stages of the work the ideas of nationality and of patriotic duty are valuable and appropriate. But it is submitted that neither of these ideas is suitable to serve as the central principle of history teaching to young children. We need an idea which is at once more personal to them and broader in its human significance, nearer to the little child's instincts and experience than is the complex idea of nationality. The idea of human activity for social betterment may furnish the teacher with the principle required. It may be illustrated from home example and from the personal experience of every day life. It can be made real or vivid to children by simple problems appropriate to their stage of mental growth. It gives a clue to the choice of stories. It links itself with the history of the beginnings and growth of civilization. And it is naturally associated with the idea of development, an idea which should underlie this and other parts of the school course.

Suggestions for the use of hand work in history teaching will be most conveniently considered under two heads, the first concerned with the work done in the years before systematic history teaching is begun with children under nine years of age, the second with the more systematic teaching of history to children of from nine to fourteen.

1. Studies by Children under Nine Years of Age.

The choice we have here made of occupations for our children is mainly the outcome of a consideration of the contrast between the character of the society in which the child of to-day grows up, and the simpler conditions of earlier generations (*cp. p.* 33 *above*). The significance of the complexity of social surroundings for the child's development, the meaning for him of the fact that since machinery on a large scale has taken place of simpler processes carried on in the home, he is cut off from any first-hand experience of the social occupations on which his own home life depends, has been pointed out by Dr. John Dewey, and we note below the extent to which we are indebted to his teaching.

The modern child is surrounded by social activities to which he is spontaneously attracted, and which have essential relations with his own daily life. Of these relations, however, he at first feels and knows little. All his experiences are fragmentary, and unconnected, and he is prevented from growing gradually into a sense of the relationships between things by the, to him, utter incomprehensibility of the instruments and methods of modern society. He finds himself in the midst of an apparently meaningless mass of social occupations. Thus one tendency of the child's present environment is to baffle his growing curiosity, and to develop the unintelligent mental attitude which is content to accept results without enquiry, to receive without sense of obligation, and to remain satisfied with an incoherent experience.

The educator's problem, therefore, is to present society as a significant whole, and to help the child, as he grows, towards an increasing sense of the relations which exist between himself and its activities. In order to do this, society must be interpreted to the child in terms of his own experience. The starting-point must be his own daily life and personal relations. To help him to feel significance in the life of his own home and immediate surroundings, to understand something of the processes which went to the making of the things he uses, to enter into the part played by different members of the community with which he is in actual personal contact, is the first step of preparation for a deeper comprehension of social forces.

The young child's interests are of a predominantly personal nature. His food, his clothes, the house he lives in, the people he sees and knows who are concerned in providing him with these things, most appeal to his thoughts and feelings. But in a broad sense, the provision of food, housing and clothing constitute the essential social problems in the solution of which the child will some day have to take his share. The educator, therefore, will seek to bring these same problems home to the child in their simplest aspects, but in so doing will only be following the path indicated by his spontaneous interests.

Thus, in such a course as that followed in the Primary School, the children between six and seven years old are led to dwell upon the articles of food, clothing, etc., with which their daily experience makes them most familiar, and to trace in simplest fashion the essential processes through which they have passed in the course processes through which they have passed in the course of production. The children also readily connect the worker with his work, and thus their own experience is so widened as to include a sense of the social relationships inevitably involved in the production of the means of life. For instance, in considering the bread which provides one of their every-day needs, the children follow part of its history back through the hands of the baker's boy, the baker, the miller, the farmer, etc, without entering into the difficulties of modern machinery, and dwelling only on each bare essential process.

Hand work is called in to give the child a means of expressing his ideas, and to help him towards vivid and clear thinking. He is encouraged to represent by means of a variety of materials and occupations the things in which he is interested. This he is able to do with freedom, because the mental attitude of the child at this age differs from that which succeeds it in that it is less discriminating : it is satisfied with the appearance of things and the imaginative reproduction of them. The child needs to reflect his surroundings by means of concrete representations, which he can work out with his own hands, but the actual thing made may have merely a superficial resemblance to the thing represented, and yet be perfectly adequate. A certain external resemblance will enable it to stand satisfactorily for the represented objcet. The child's imagination does the rest. Thus with a few bits of wood and cardboard he can express sufficiently well his idea of an electric tram—he wants to show what it looks like, and he wants it to move—but he is content to move it with his own finger, and does not yet enquire much as to how the real tram moves. During this first stage therefore, the complications of modern society offer little obstacle to the child, because it is enough for him to consider his surroundings as he knows them by their appearances and activities. He feels no concern with the inner workings of the things he sees about him.

A little later, however, a change comes over his mental attitude. He is no longer satisfied with appearances; he wants to understand the how and the why of the forces of which he sees the effects. He is ready to analyse, eager to think out problems, but his powers of analysis and reasoning are so little developed, that the vast and complicated machinery of modern society is as a blank wall in the path of his development; unless helped, he must fall back upon his former undiscriminating attitude and lose his growing consciousness of the relation of parts to the whole and to the ends accomplished.

The child, therefore, needs to be shewn the problems which his environment presents in a simpler form, and to be allowed to work at these in such ways as his mental capacity and experience will allow. For this reason the children are taken back in imagination to the time when modern civilization was unknown, when the means of living were of the crudest kind, and man lived closest to nature. With the help of stories and description they are led to feel the difficulties of the problems of securing food, clothing, and shelter, as these confronted primitive man, and they are given as much experience as circumstances will allow of the actual selection of raw materials, and of their transformation into use as means of living. This study has more than an intellectual significance, since man's social organization and sense of moral obligation have largely been determined by his use of his environment in solving the problems of living, nor has his æsthetic development a less close relation with the necessary occupations of life.

It will be observed that in planning this course of work, no more than a general importance is attached to the culture-epoch theory. Typical simple organizations have been selected for study, because these present the same fundamental problems in different stages of progressive complexity. But since it has been noticed that children between seven and nine years of age are especially interested in the way of life of primitive peoples, a setting is given to the working out of these problems by means of stories of representative personalities. Indeed it has been found here as elsewhere that the personal interest in individnals is necessary to children of this age, if the problem is to become vivid and real to them.

The following is an outline of the plan of work followed in the Fielden Primary School with children between six and nine years old :—

(*a*) CHILDREN BETWEEN SIX AND SEVEN YEARS OF AGE.

The central idea of this part of the course is as follows :—

THE HOME.—

1. *Food*. At least once in the week, the children observe and talk about the different kinds of food which they use the most. They study its growth, and prepare it for use by means of simple cooking processes with the teacher's help. Bread, butter, milk, carrots, sprouts, potatoes, etc., have been studied in this way. The food is eaten afterwards by the children themselves, and others with whom they share it.

2. *Clothing*. Starting from the change to warm clothing which is every child's experience at the beginning of the winter, a simple study is made of the different

materials of which clothes are made, and the sources from which they come, *e.g.*, cotton, wool, silk, etc.

The children weave various materials on simple card looms prepared for them, and make crude doll's garments from pieces of cloth, etc.

3. *Housing.*

(1) The characteristics of the home itself are studied, the work of the bricklayer, mason, joiner, the painters, and glaziers, etc. The children are taken to watch men at work on different parts of a house.

(2) The equipment of the house—the use of each room, and the kind of furniture necessary.

(3) The people for whom the house is built: the work of father, mother, etc., the work necessary to keep the house in order.

Also, by means of various materials and occupations, the children furnish a doll's house—planning the rooms, and constructing the furniture.

4. *The Environment of the Home.*

(1) The garden, and its care.

(2) The streets full of houses and the different kinds of shops etc.

(3) The village or town, and its principal features and buildings, its public servants, *e.g.*, the postman, policeman, etc.

This part of the work is also represented by means of models in various materials, *e.g.*, sand, clay, wood, etc.

(*b*) CHILDREN BETWEEN SEVEN AND NINE YEARS OF AGE.

In the first place the social conditions of hunting and pastoral peoples have been taken as subjects of study for children of this age, arranged in two classes. The work was introduced by an expedition to Birchfields, a stretch of uncultivated ground, which, although within the limits of Manchester is out of sight of shops and houses. Here the children imagined a day's activities, including washing, dressing, eating, etc., under the same circumstances as those under which they then found themselves, with no other resources than their surroundings. Much pruning of their ideas of the necessities of everyday life had to take place before they could realize the situation, and this process excited the greatest interest and fun. The fact that people had once lived under conditions as bare as these was then presented, and the story was told how once the earth was inhabited by monsters which men could not even fight, but had to hide from in terror. The probable way of life of the Tree-People was epitomised by means of stories derived from several sources, including Sharp Tooth and Bodo (*see references below*). The problems of Sharp Tooth's life presented extreme simplicity—making a hanging cradle—securing fruits for food, etc. From this we passed on to the consideration of the beginnings of home-life as shewn by the life of the Cave-people, illustrated for the children by the story of Ab (*see references below*). This was probably made possible by the discovery and use of fire which became a weapon of attack as well as a means of defence. At this stage, problems began to develop with great rapidity, for here we have the beginnings of man's subjugation of brute nature and use of natural forces. In this period man developed capacity for tool-inventing, and we get the axe, the adze, the scraper, all representing a definite response to a definite necessity. The children made attempts to construct such weapons, not from models and directions but as their own practical solution of the problem. Food-getting was now a somewhat more complex operation than in Sharp Tooth's days, both the animal and plant world being exploited to a greater extent than before. The gathering of fruits led to the necessity for carrying apparatus and the simplest prepartion of food involved the construction of suitable vessels. As an outcome of these considerations the children worked out the carrying problem first with similar materials and under similar conditions to those of primitive peoples. Later, however, they proceeded to use modern materials for the same ends, and thus made a connection between the things in use to-day and their prototypes. The clay vessel was evolved from the idea of the primitive basket, and the children worked out the two problems side by side.

The cave-dweller's home was a more or less isolated unit, but the conditions of life of a hunting people, led inevitably to the necessity for organization for purposes of hunting and fighting. Thus we get the evolution of the small group of families, finally developing into the community, having definite laws and customs.

The life of the Red Indians was selected as the next type for study, as it represents a similar though further developed form of community organization. Hiawatha was taken as the central personality. Here the influences of geographical surroundings becomes apparent by contrast with the habitat of the cave-dwellers. The problems are similar though operations carried out are on the whole less crude than before—the main emphasis is laid on the beginnings of agriculture.

The advent of the *pastoral peoples* is due to the institution of the domestication of animals. This source of food supply influenced radically the custom and habits of life of the people. A nomadic life was necessary, hence the tent became the home. The greater security of food, and relief from the stress inseparable from a hunter's life gave rise to a considerable amount of industrial activity, which in its turn was determined in its nature by the people's special means of livelihood. Therefore spinning and weaving owe their earliest development to the pastoral tribes. The greater part of the children's work at this stage centres round these two activities, which are specially emphasized in this school on account of the importance played by the textile industry in the North of England. As before, the problem is first considered only as a problem; afterwards an attempt is made to secure greater finish in the work done and attention is paid to colouring and design. The literature used in connection is the Story of Joseph the Dreamer (*see reference below*).

After these studies of pastoral tribes the children are ready to inquire into modes of life pursued under more settled conditions. And it will be observed that the advance in mental attitude of an eight year old child can be vaguely paralleled by that of the primitive farmer. The development of agriculture demanded greater mental tenacity, self-restraint, patience: and the child now displays a dawning of mental power, an ability to work for remoter ends, a readiness to appreciate principles applied in the making of tools, even when these are are somewhat complicated. As before, the geographical conditions are the starting point, and the occupations mostly dealt with are those of gardening and woodwork. The work in connection with the home previously done in the kindergarten now reappears, but under an entirely different aspect. Stories of a Saxon tribe and its migration to England form the core and literary setting of the children's work. The building of a Saxon log-house—its lighting, furnishing and defence, the provision of food and clothes for its inmates provide abundant material for a variety of handwork. Definite courses also of woodwork and nature-study are based on these central interests. The point of social organization emphasized is the division of labour.

The limitation of home resources, natural instinct, and the local accident of being near to the sea, probably gave the first impulse to travel and exploration. For this reason, and because of a corresponding change in the child's attitude as he gets towards nine years of age,

he too shewing his readiness for a wider mental experience, the consideration of early travel and exploration is next undertaken. This makes the children think about the great physical forces of nature, the winds, tides, etc. At this time we make a general survey of types of geographical surroundings and their influence upon types of men, since by means of our stories of adventure, we can travel with our heroes from pole to pole. The hand work of the children includes a study of the simplest modes of locomotion by land and water. A definite approach is also made, almost inevitably, to the more formal study both of geography and history; since many of the stories of adventure centre round historic individualities, and necessitate besides some general ideas of the forms of land and water on the globe, explanations of the seasons, day and night, etc. These subjects are dealt with as the need for them arises.
The children are thus prepared for more systematic study of the historical beginnings of the nation to which they belong, during the next period of their school life.

The work described above is indebted throughout to Dr. John Dewey, and to other books mentioned below. The aim of those in charge of it has been to carry out its underlying principles in ways adapted to English children's needs and circumstances. Though the work is still experimental in its nature, the children's response to it has been sufficiently satisfactory to make us anxious to continue for the present on the same lines.

SHORT LIST OF BOOKS.

Dewey, John. "The School and Society" (London, P. S. King and Son, 1899, 6s.).

Dewey, John. "The School and the Child," edited by J. J. Findlay (London, Blackie, 1906, 1s.).

"The Teacher's College Record" (New York, Columbia University Press, Agents, the Macmillan Company, 66, Fifth Avenue, New York), vol. vii., Nos. 1 and 4 (out of print).

Dopp, Katharine Elizabeth. "The Place of Industries in Elementary Education" (Chicago University Press, and London, P. S. King and Son).

Dopp, K. E. "The Tree-Dwellers" (New York, Rand, McNally and Co.).

Dopp, K. E. "The Early Cave Men" (New York, Rand, McNally and Co.).

Dopp, K. E. "The Later Cave Men" (New York, Rand, McNally and Co.).

Hall, H. R. "Days before History" (Geo. Harrop and Co.).

Bird, R. "Joseph the Dreamer": the story of Genesis retold to children (London, Longmans, Green and Co.).

Waterloo, S. "The Story of Ab" (A. and C. Black).

1. STUDIES ARRANGED FOR CHILDREN FROM NINE TO FOURTEEN YEARS OF AGE.

In illustration of the use of hand work in connexion with history teaching to children of from nine to fourteen years of age, we are permitted by Miss Gilpin to print the main outlines of the scheme of work (1907-8) at the Village Hall School, Weybridge. The period of English History taken by the children during the school year 1907-8 is 1625—1660. It will be seen that the literature, the geography, the hand work and the singing are all, in some measure, linked with the history in the year's course.

The hand work of the course (apart from the painting, drawing and map making mentioned under another head) consists in the making of a model of old Westminster, showing Whitehall Palace, the Abbey, Westminster Hall and other buildings connected with the history of the period, and in the reconstruction of a Seventeenth Century interior from a painting by Teniers in the National Gallery. The model, when set out, will cover a small table. The table will be placed against a wall, which represents one of the walls in the picture. The other two walls will be represented by short screens covered with paper upon which will be painted objects appearing in those parts of the picture. The older children are modelling the figures and making the costumes. When the size of one figure was determined, the relative sizes of the others were worked out by the children. The picture represents some pieces of simple furniture, which are being made by the children out of thin wood or cardboard, and a number of household utensils which are being modelled in plasticine.

PLAN OF STUDIES SHOWING CORRELATION OF WORK DURING THE SCHOOL YEAR 1907-8

(VILLAGE HALL SCHOOL, WEYBRIDGE).

1. HISTORY	2. LITERATURE	3. RECITATION	4. GEOGRAPHY	5. LATIN	6. FRENCH.
1625—1660. CHARLES I., and Strafford, his faithful friend and Minister. The French Queen and France of the period. The causes which led to the civil war. The high-principled men of both parties—Eliot, Hampden, Pym, Falkland, Verney. The great men of the Commonwealth: Milton, Admiral Blake, Ireton, Baxter. CROMWELL. (*a*) As victorious General in the three kingdoms—Marston Moor, Naseby Dunbar, Drogheda. (*b*) As Stateman in Foreign Affairs. Struggle with the Dutch, with Spain, etc.—England's place in Europe under the Commonwealth. (*c*) As Protector. Destruction of the ancient constitution, and repeated attempts at reconstruction—The gradual working round to a monarchy, with two houses again, and finally THE RESTORATION OF CHARLES II. —— SURREY in the History of the period. Kingston—where the first and last stands were made for the King. Walton—where Bradshaw lived and where he was buried. Oatlands—residence of Charles at one period of the war. St. George's Hills—where the Levellers, known as the "diggers," began to found a socialistic community. An outline of the HISTORY OF ENGLAND, 1547—1625, will be given, so as to connect this year's work with last.	Parts of— Browning's *Strafford.* Shorthouse's *John Inglesant* Scott's *Old Mortality.* Scott's *A Legend of Montrose.* Bunyan's *Pilgrim's Progress* —— English Reading and Composition from above.	Milton's *Ode to Cromwell.* *Sonnet on his blindness.* Andrew Marvell's description of Charles I.— "*That thence the royal actor borne* *The tragic scaffold might adorn*"; And of Cromwell— "*And if we would speak true,* *Much to the man is due.*" Marvell's *A Girl describes her Fawn.* Lovelace's "*Stone walls do not a prison make.*" Ben Jonson's "*It is not growing like a tree* *In bulk, doth make man better be.*" Aytoun's *Lays of the Scottish Cavaliers.* Macaulay's *Battle of Naseby.* Verses from Dryden's Poem on Cromwell. Poems descriptive of occupations connected with the Seasons.	ENGLAND of the 17th century compared with the England of to-day—ports, chief towns, etc. The Battlefields of the Civil War. Old towns, connected with the war, which still contain remains of that period. A 17th century city and a 20th century city. SCOTLAND (with special reference to the campaign of Montrose). IRELAND (with reference to Strafford's and to Cromwell's campaigns). THE NEW ENGLAND STATES their names and settlement, from Pilgrim Fathers, 1620, to Penn's Treaty, 1682. —— Maps and Plans in connection with the Geography.	GRAMMAR, EXERCISES, and in the early stages a good deal of READING and LEARNING BY HEART, for the sake of acquiring a vocabulary and also some familiarity with the construction of the language. For Reading—"Pro Patria" and easy Latin stories. For Learning by heart—Psalms, hymns, and short poems. The badges and mottoes of some of the chief families of the 17th century; also of the towns of England connected with the civil war. —— N.B.—The younger children do not learn Latin.	READING. EXERCISES. TRANSLATION. DICTATION. Conversation to increase vocabulary and use of the idioms of everyday speech. Simple History Stories in French of reign of Louis XIII. Character of Mazarin from Dumas' *Vingt ans après.* Stories from the Fables of La Fontaine.

7. SCRIPTURE	8. HANDWORK	9. PAINTING AND DRAWING	10. ARITHMETIC.	11. NATURAL HISTORY.	12. ELEMENTARY SCIENCE.	13. SINGING.
THE PSALMS. The Life of David. The Psalms of David and of the Exile. Examples of metrical versions. The Psalms in History (1625–1660). Ps. LXVIII (Cromwell's favourite). Ps. CXVII. (after the Battle of Dunbar). Ps. XLVI. Ps. LXXVI. } Basis of Cromwell's address to his 2nd Parliament, 1656 — Parts of above and other passages of Scripture to be learnt by heart.	Clay modelling of fruits, flowers, natural objects, etc. The reconstruction of a Dutch interior of the 17th Century, from a picture by Teniers. Model of Old Westminster, showing some of the chief places in London connected with the period—Whitehall Palace, Westminster Palace, the Abbey, Westminster Hall.	Drawings and paintings of flowers, fruits, etc. Freehand and Model drawing. History Note Books to be kept, illustrated by drawings, paintings, post cards, maps, plans, etc. The greatest Artists of the period—Vandyck, Rembrandt, Teniers. Inigo Jones, etc. Drawings to be made of details taken from their works at the National Gallery and National Portrait Gallery. Comparison with great Italian Artists of last year's work. (Visits to the Galleries will be made during the year).	VULGAR AND DECIMAL FRACTIONS. PROBLEMS, using weights and measures. PRACTICE, simple and compound. MULTIPLICATION AND DIVISION. FACTORS. PROBLEMS, with measures of length and surface.	NOTES AND DRAWINGS made to show— Changes in plants from month to month and the formation of buds, flowers and fruits, with special regard to trees, bulbs, and hardy annuals. Poisonous and edible fungi. Metamorphoses of insects. Characteristics of birds, nests, and eggs. Studies made from dead birds and forsaken nests and eggs. Pond Life from School Aquarium. OUT-OF-SCHOOL WORK Making of a Floral Calendar. Competition in growing bulbs and hardy annuals or vegetables. Chrysalis hunting.	Simple lessons and experiments to illustrate the principles of— THE THERMOMETER. THE BAROMETER, and the every day phenomena observed and daily recorded by the children. The ideas of the 18th century with regard to natural phenomena, the theories and discoveries of Galileo compared with the ascertained facts of to-day.	Sight Reading. Ear-tests. Songs in Unison and Two-Parts. Some 17th Century Songs, *e.g.*, Herrick's *To Blossoms* *To daffodils, etc.* *The leather bottell.* *The oak and the ash.* Some 17th Century *Hymns, e.g.*, Baxter's "*Lord it belongs not to my care,*" "*Ye holy angels bright.*" George Herbert's "*Let all the earth in every corner sing.*" Milton's Metrical version of Psalm CXXVI., "*Let us with a gladsome mind.*"

APPENDIX A.

MRS. FIELDEN, LITT.D. OF THE MANCHESTER UNIVERSITY.

(*From the "Manchester University Magazine," November*, 1906.)

At the close of last session, it was announced that the Court of the University had conferred upon Mrs. Fielden, of Centre Vale, Todmorden, the degree of Doctor of Letters.

Mrs. Fielden is too advanced in years to come in person to be welcomed among our graduates, but we can assure her that the University is delighted to add her name to the academic roll, as the first lady to receive an honorary degree in the newly-constituted Faculty of Arts.

Outsiders may be inclined to suppose that this honour has been conferred as an acknowledgment of Mrs. Fielden's benefactions to the University, and to other places of education in Lancashire, but, as the Vice-Chancellor pointed out at the time, this is by no means the case. She was for the greater part of her life a devoted teacher of young children, a student of educational methods, and lecturer to teachers, working for the improvement of education in days which now seem to us the dark age of Elementary Education—long before the era of the Board School.

Mrs. Fielden belonged by birth to Liverpool, not to Manchester. She was a Miss Yates, born in 1819, and on November 5th next she will be 87 years old. Her grandfather, the Rev. John Yates, founded the first undenominational elementary schools in Liverpool, and

MRS. FIELDEN.

while still a girl, Miss Yates was drawn into that circle of social workers and philanthropists to whom Liverpool owes so much.

These were anxious days in the history of our country, and in no quarter of England was the pressure of social troubles felt more keenly than in Manchester and Liverpool. A huge population had grown up with startling suddenness, and it was appallingly ignorant. Many families of good position were drawn in one direction or another to try to relieve the strain: while some looked to political reform, others cared for religious needs, and others turned to education. Little importance was attached to intervention by the State on the children's behalf—the schools were founded, maintained, and taught directly by those who felt the needs of the rising generation. In Manchester the Peter Street and Mosley Street Schools were the most prominent feature of the movement; in Liverpool, the Rathbone, Rawdon, and Yates families were among the chief workers in the cause of education.

Now what distinguished Miss Yates from the rest was her dissatisfaction with the crude and stupid methods adopted in the schools, and her determination, by study and observation, both on the Continent and in England, to get these methods either mended or ended.

This is not the place to give a sketch of the views which, in the course of time, she adopted, but no one can question the success of her work, nor the influence which she exerted during many years. After her marriage in 1859 her sphere of public activity was necessarily restricted by her duties as the mistress in the Fielden household; Centre Vale was the home of a family which was playing a great part in the industrial and political life of Lancashire. But in another way her opportunities were enlarged, for her husband, although not sharing her enthusiasm for the special reform which she advocated, was broad-minded and sympathetic, and her position in Todmorden enabled her to exercise a wide influence. She first of all sustained and taught in Factory Schools in Todmorden, and then at a later period, when the Government at last began to take up its duty towards the young, she was enabled to embody her ideas in a model elementary school which was erected on the estate. This school was her personal daily care for more than thirty years, and numbers of young women teachers were trained in it. The Government Blue Books in the 70's and 80's constantly eulogised the work of the place, and Mrs. Fielden was invited to give evidence before the Royal Commission of '88. The Minutes of her interview with this body are most cheerful reading, and show that many years of school routine had not diminished the brightness of her wit or her practical common sense.

When old age rendered it impossible for Mrs. Fielden to take the same active share in teaching she turned with all the more interest to the work done by others and was readily induced to respond to the appeals made some ten years ago to found a Chair of Education in the Owens College. She became a real friend of H. L. Withers, who was appointed to the new Chair in 1899, and felt his death in 1902 as a keen personal loss.

When, after Professor Findlay's appointment, she heard that he was anxious to establish a Demonstration School, she inquired into the nature of the scheme, and took it up with all her former enthusiasm and energy. Mr. Alfred Bentley, as Chairman of the Committee, has seconded her efforts, and a work has been set on foot which is full of promise as an aid to the study of education in this University.

Mrs. Fielden has handed over the property in Lime Grove, together with endowment (amounting in all to more than £6,500) to the University and to Mr. Bentley as Trustees, in order to maintain a Demonstration School as part of the permanent equipment of the Department.

She has augmented the Endowment Fund of the Chair of Education by the sum of £2,000. Her example is now beginning to stimulate other friends of educational reform, and it is anticipated that the Primary School in Brunswick Street may presently be transferred to Lime Grove, and incorporated in the Fielden School Trust.*

This enterprise has no doubt had influence beyond the immediate needs of our Department of Education. The Education Bill now before Parliament contains a clause enabling Government aid to be given to Demonstration Schools, and there can be no question that the authorities at Whitehall (some of whom were associated with Mrs. Fielden's work in bygone days) have been influenced by the example of her shrewd and devoted efforts in this cause.

Most of the friends with whom Mrs. Fielden was associated in early days have gone before her, but in the loneliness of old age it may be some satisfaction to her to know that a younger generation has not quite forgotten the old times. Even in our new University we can offer our tribute to one who has worked for Education before the days of Owens College.

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* Since the above was written the amalgamation has been effected see below p. 120).

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APPENDIX B.

EXTRACT FROM THE TRUST DEED OF THE FIELDEN SCHOOLS.

[THE Deed recites the conveyance from Mrs. Fielden, Centre Vale, Todmorden, to the Victoria University of Manchester and Mr. A. T. Bentley as Trustees, 3 houses in Lime Grove, together with £4,000 towards the Endowment of the Fielden Demonstration School. The property is subject to a rent of £52. 10s. 6d., but there is a receivable rent of £13. 2s. 6d. issuing out of adjoining property which will be conveyed to the University. One of the three houses is at present occupied by the school, the other two are let on leases. The street has not been taken over by the Corporation, and is closed to vehicular traffic.]

The following paragraphs, revised by the Trustees November, 1907, indicate the method of management:—

1. The School shall be managed by a Committee (hereinafter called the Committee) consisting of the following members:

(*a*) The Treasurer or deputy Treasurer of the said University.

(*b*) Two members of the said University to be appointed by the Council.

(*c*) The Professor or Professors of Education for the time being of the said University.

(*d*) A representative of the Manchester Education Committee.

(*e*) Two representatives of the parents of scholars in attendance at the School, to be chosen in accordance with arrangements to be made by the Committee.

(*f*) Not more than three other members to be co-opted by the Committee and approved by the Council of of the University.

(*g*) A President, an Honorary Secretary, a Chairman, and a Treasurer who may be chosen by the Committee if they desire from persons not otherwise members. The appointment of a President and an Honorary Secretary shall be left to the discretion of the Committee, who shall not be bound to fill up either of the said offices.

The Members of the Committee who are not *ex officio* members shall hold office for such period or periods (not exceeding three years) as the bodies appointing or co-opting them shall determine provided that any member of the present Committee of Management of the School on the 26th of March, 1906, who would not be a member of the Committee as above constituted shall be a member of the Committee until his or her death or resignation.

2. The Director of the School shall be the Sarah Fielden Professor of Education for the time being of the said University.

3. The receipt of the Treasurer of or of any Officer appointed by the Committee shall be a good discharge to the Trustees for any moneys paid by the Trustees for the purpose of the School, and the Trustees shall not be liable to see to or to account for the application of any moneys so paid.

4. In case at any time it shall appear to the Committee that it is inexpedient to continue the said School and a resolution to that effect shall be passed by a majority of three-fourths in number of the Members of the Committee present at a meeting of the Committee specially convened for the purpose, and such resolution shall be confirmed by the Council of the said University then the Trustees shall stand seized or possessed of the said heriditaments comprised in the first schedule hereto and the investments for the time being of the said sum of four thousand

pounds upon and for such other trusts, intents and purposes connected with the Practical Training of Teachers in the Department of Education of the said University as the Trustees shall think proper to declare or direct and thereupon such of the Trusts and provisions herein declared and contained as shall be inconsistent with such new trusts, intents and purposes shall become and be void.

5. The Committee shall have full powers of managing and of letting from year to year the said hereditaments comprised in the first schedule hereto or any part thereof.

6. The Trustees may if they think fit on the request of the Committee let, sell, mortgage, exchange or otherwise dispose of or deal with the whole or any part of the hereditaments comprised in the first schedule hereto, and may on the like request sell or deal with the investments for the time being representing the said sum of four thousand pounds or any part thereof.

7. The Committee shall superintend and direct the repairing and insuring against loss or damage by fire of the said hereditaments and premises and also the payment of all rates, taxes, chief rent and other outgoings in connection therewith, and the Trustees shall be under no responsibility to see to the same matters or any of them.

Note.—The term "School" is used in the deed to cover both the Upper and Primary Schools, which are conducted as separate departments, with one Committee and one Director, but each having its own premises, with its own head teacher and staff, as described in the Bye-Laws adopted by the Committee.

BYE-LAWS AS ADOPTED IN 1906.

The Committee.

1. The Committee shall ordinarily meet at least three times a year, once during every school term, on an afternoon in February, June and November.

2. The Chairman, or any three members of the Com-

mittee may at any time summon a special meeting for any cause that seem to him or them sufficient.

3. Notice in writing of every meeting shall be delivered or sent by post to each member at least three clear days before such meeting, or in the case of an adjourned meeting, at least two clear days before such meeting. Every notice of meeting shall state the day and hour of the meeting and the business to be transacted thereat. Only business so stated, or incidental thereto, shall be transacted at a special meeting.

5. Four Members of the Committee shall be a quorum.

5. The Chairman shall be elected at the November meeting in each year, and shall be re-eligible. He shall have a second or casting vote in case of equality of votes on any question.

The School.

8. The Director shall submit annually to the Committee a prospectus which shall prescribe the general subjects of instruction and other arrangements for the teaching and training of the scholars. At the same time the Committee shall make arrangements respecting the school terms, vacations, holidays and fees. They shall approve the rules and regulations of the school and any other printed documents issued for the use of the school. They shall fix the age and general standard of attainment of scholars to be received into the school. They shall take general supervision of the sanitary condition of the school buildings and arrangements. They shall fix the number of Assistants to be employed and the amount to be paid out of the income of the school for salaries of each member of the staff and for other purposes.

9. Subject to the above paragraph, the Director shall have under his control, the methods of teaching and training, the choice of books and apparatus, the arrangement of classes and school hours, and generally the plans on which the education of the scholars is conducted. Subject to this general supervision by the

Director, the Headmaster shall exercise authority over the scholars, receive applications for admission and examine candidates for admission, keep the registers of admission and attendance, interview and correspond with parents and be responsible for the daily management of the school. The Headmaster, with the approval of the Director, shall have power to suspend a scholar from attendance, or to require the withdrawal of a scholar from the school, but he shall forthwith communicate his action to the Chairman of the Committee, who shall report the case to the next ordinary meeting.

Staff.

10. The Headmaster shall be appointed by the Committee, and the appointment shall be for a term of three years, and on such conditions as the Committee may determine, but may be renewable at the expiration of that period. The Assistants shall be appointed by the Committee on the recommendation of the Director, and the appointments shall be for one year, but may be renewable for a second year. One or more of the Assistants may be student-teachers or research students.

11. No Headmaster or Assistant shall be a Member of the Committee, but the Headmaster shall be summoned and be present at the ordinary meetings of the Committee, when matters connected with his duties are to be dealt with.

12. No Director, Headmaster or Assistant shall receive or demand from any scholar or parent, any gratuity, fee or payment beyond what is prescribed in the prospectus or approved by resolution of the Committee.

University Students.

13. In supervising the work of the University Students the Headmaster and the Assistants shall act on the instructions of the Director, and the students, while on the school premises, shall be deemed to be under the

control of the Headmaster. The Headmaster shall furnish to the Director, for the purpose of the University, a confidential report of the progress of each student during the period he has worked in the school.

Audit and Report.

14. The Committee shall cause the accounts to be annually audited, and the accounts shall include a balance-sheet, and an estimate for the ensuing year. If the reports of H.M. Inspectors of Training Colleges contain references to the school, these shall be included in the Director's Report. A copy of the statement of accounts and of the report shall be forwarded to Mrs. Fielden, during her lifetime, to the Trustees, to any subscribers or benefactors and to the Manchester Education Committee.

Religious Instruction.

15. The practice at present followed in the school of opening the school with a hymn and a form of prayer of undenominational character and of giving a Bible lesson on Monday shall be continued. A scholar shall be exempted from attendance at prayers or the Bible lesson on the written request of the parent or guardian.

Preparation for Examinations.

16. No member of the Staff shall be permitted to give special instruction or courses of preparation for any public examination to individual scholars without the approval of the Committee given beforehand.

Alterations in Bye-Laws.

17. No alteration shall be made in these Bye-Laws except by full notice given to the Secretary and placed on the Agenda paper for one of the ordinary meetings. A copy of the Bye-Laws shall be supplied to every member of the Committee, to the Trustees, and to the Headmaster on appointment.

Title of the School.

18. The title of the school is the Fielden Demonstration School, but for the purpose of the prospectus and other common use it shall be described as The Fielden School.

Departments.

19. If there are two Departments to the school, a separate Head shall be appointed for each, a Headmistress for the Primary Department, and a Headmaster for the Higher Elementary Department. The duties and position of the Headmistress shall be similar to those assigned to the Headmaster in preceding paragraphs.

Note.—The Bye-Laws describe the method of managing the schools up to Christmas, 1907. As the Primary School is now amalgamated with the Upper School under the Trust Deed, the Committee propose to revise the arrangements so far as may be necessary to meet the requirements of the combined schools.

The enlarged Committee, which includes members of the former Primary School Committee, is constituted as follows :—

The Fielden Schools,

Nos. 12 and 19, Lime Grove, Oxford Road, Manchester.

Committee.

President of the Schools: Sir W. Mather, LL.D.

Chairman of the Committee: Mr. Alfred T. Bentley, M.A.

Hon. Treasurer: Mr. W. A. Lewins,
Manchester and Liverpool District Bank, Oxford Road, C-on-M.

Hon. Secretary: Mrs. G. Eckhard,
Broome House, Didsbury.

Deputy-Treasurer: Professor Core,
Groombridge House, Withington.

Director of the Schools:
Professor J. J. Findlay.

Mrs. Mark Ashton,
Heyscroft, West Didsbury.

Mrs. Fielden, Litt.D.,
Centre Vale, Todmorden.

Mr. W. B. Hards, H.M.I.,
Weston, Sale.

Professor M. E. Sadler,
The University, Manchester.

Alderman Joseph Thompson, LL.D.,
Riversdale, Wilmslow.

Nominated by the Council of the University:
Mr. Harold L. Behrens,
West View, Victoria Park, Manchester.
Dr. Ashby,
13, St. John Street, Manchester.

Nominated by the Manchester Education Committee:
Sir T. Thornhill Shann,
Meadow Bank, Heaton Norris.

Nominated by the Parents of Scholars in attendance:
Mr. J. F. Templar.
57, Park St., Greenheys, Manchester.
Mrs. Watts,
107, Upper Brook Street, Manchester.

Secretary:
Mr. H. S. Barratt, Bursar's Office, The University, Manchester.

Teaching Staff of the Schools:

THE FIELDEN UPPER SCHOOL.

Headmaster: W. J. DEELEY, B.A. (London University).

Assistants: F. W. D. MARSHALL, M.Sc.; Miss GWLADYS EVANS, M.A.; J. WHITEHEAD, B.A.; S. J. WOODALL, M.A.

School Clerk and Teacher of Handicrafts: Miss E. SANDIFORD.

THE FIELDEN PRIMARY SCHOOL.

Headmistress: Miss K. STEEL, N.F.U., late Headmistress of the Goldie Leigh School, Plumstead, Kent.

Assistants: Miss D. WALFORD, Miss F. ORGANE, N.F.U., Miss Z. A. DUNN, Miss H. N. ORMROD, B.A., Miss W. G. MAITLAND, N.F.U.

Note.—Since January 1906, when the preparation of this Record was begun, the following teachers, who have now left the school, were on the staff:—

The Upper School: Miss E. G. Smith, B.A.; Miss F. Hayhurst, B.A.; P. Sandiford, M.Sc.; G. E. Stockton, B.A.

The Primary School: Miss M. G. Findlay, M.Sc. (Headmistress, until Christmas, 1907); Miss G. Ives, N.F.U.; Miss Sutcliffe; Miss G. Dixon, M.A.; Miss Winifred Newton, B.A.; Miss Dorothy Warner, N.F.U.; and Miss D. Horsfall (who also kindly acted as Hon. Secretary to the Primary School Committee in 1906-7.)

Association with the University Department of Education: In addition to the oversight exercised by the Director as described in the Bye-laws, the following lecturers and demonstrators take an active share in the life of the school, since they supervise (along with the class teachers) the work done by students: Mr. H. Thiselton Mark, M.A., B.Sc.; Miss Barbara M. Foxley, M.A.; Miss M. Grace Owen, B.Sc.; Mr. P. Sandiford, M.Sc.; Mr. S. E. Maltby, M.A.. Miss Christabel Dickinson, B.A. The school is also used for the purposes of demonstrations in Singing, by Dr. Carroll and Dr. Keighley (Instructors to the Training College in Singing) and by Miss L. Start, for demonstrations in Drawing and Needlework.

INDEX.

A

Acland, Mr. F. D., in connection with Education Bill, 4.
Anthropometry, 7.
Arnold Matthew, 24.

B

Baldwin, J. M., 22.
Barnes, Earl, 22.
Binet, 27, 28.
Birrell, Education Bill, 4.

C

Camp in the country, School at, 51, 53, 79.
Campion, G. G., 8.
Chemistry, 44.
Child Study :
  Definition, 18.
  Use of Schools, 6--11.
  Syllabus, 15, 16.
  Text-books, 12.
  Social aspects, 17.
Children, Curriculum for :
  Ages 4—6, 31.
  Ages 7—9, 32.
  Ages 10—12, 34.
  Moral and social nature, 24.
Corporate Life of School, 73.
Crichton-Browne, Sir James, 26.
Curriculum, general, aims of, 30.

D

Deeley, W. J., 35.
Demonstration Schools, the control and financial support of, 85.
Demonstration Schools, relation to state of, 89.
Dewey, 5, 33, 42, 96, 105.

E

Eggert, B. Dr., 72.
Eyesight, 7.

F

Fielden, Mrs., 85, 86, 110—113.
Fielden Schools, Committee of Teachers, 88, 121, 122.
Fielden Schools, Staff of, 88, 122.
Fielden Schools, Trust Deed of, 86, 87, 114—120.
Files for register of scholars' progress, 10.
Foreign language, Processes involved in the acquirement of a, 69.
Frazer, Mrs., Use of phonography, 65.
French :
    Curriculum for first year, 60.
    Diary of work in, 66.
    First year's course, 59.
    Growth of vocabulary in, 67.
    Reading and writing, 65.
    Singing in, 65.
    Teaching devices, 63.

G

Gilpin, Miss, 3, 106.

H

Hall, Stanley, 22.
Harris, Dr. W. T., 20.
Herbert, George, 83.
History Teaching, aims of, 95.
History Plan of work in Fielden Primary School, with children between six and nine years old, 100.
History Teaching to children under Fourteen Years' of age, Handwork in, 94.
History for children under Nine Years' of age, 96.
History and Handwork, 98.
Horsfall, T. C., 24.
Howarth, A. A., Mr., in connection with Education Bill, 4.
Humanities, the, 34.
Hygiene, 45.

I

Intellectual aptitude and tendencies of children, 25.

J

James, Professor William, 24, 25.

K

Klinghardt, 59.
Kindergarten, curriculum of, 31.

L

Lessons demonstration, 36.

M

Manual Training, 32, 35, 94.
Mather, Sir W., 4, 121.
Medical Examination, 9.
Münsterberg, Professor, 19.
Morris, Dr., 45.
Morgan, Professor Lloyd, 19.

N

Nature Study (botanical), 43.

P

Parent representatives, 78.
Parent's Evenings, 75.
Parents relation to the School, 73.
Perry, Rev. Nugent, founder of the Country School, 79.
Physical development of school-children, 22.
Physics, 44.
Physiography, 43.
Phonograph, the use of, in learning French, 65.
Pestalozzi, 26.
Play, meaning of, to young children, 32.
"Plan" for Practical Work in Teaching, 39, 40.
Preyer, 25.
Preston, Dr. (Examination of Teeth), 8.

R

Reading, 32.
Rein, 5, 75.
Rousseau, 26.

S

Scheme Books, 37, 38.
School as sociological factor, 19.
Science, 35, 42.
Science, Syllabus, 46—58.
Seminar, 39.
Sherrington, Professor, 26, 27.
Speech, study of development, 13.
Spencer, Herbert, 22.
Students and the Demonstration Schools, 36.
Study of Curriculum and Method, 30.

T

Teaching, Rousseau—Pestalozzi—Froebelian, 28.
Thorndike, 25.
Thring, 20.
Training of Teachers compared with that of Engineers, etc., 1.
Type of text-books, 7.

V

Viëtor, Professor, 59.

W

Walter, Max, 59.
Ward, Dr. A. W., 25.
Weybridge, Village Hall School, 94, 106.
Weybridge, Correlated plan, 108, 109.
White, Dr. Julia, 8.
Williamson, Dr., 6—8.
Wotton, Sir Henry, 25.
Wright, Prof. Mark, 5.

Y

York, British Association Meeting, Report to, 69.

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